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**Atmospheric Photochemical Modeling of
Turbine Engine Fuels. Phase I.
Experimental Studies Volume II of II
Environmental Chamber Data Tabulations**

**W.P.L. CARTER, A.M. WINER, R. ATKINSON,
M.C. DODD, W.D. LONG, and S.M. ASCHMANN**

**STATEWIDE AIR POLLUTION RESEARCH CENTER
UNIVERSITY OF CALIFORNIA
RIVERSIDE, CA 92521**

SEPTEMBER 1984

**FINAL REPORT
JUNE 1983 - JUNE 1984**

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) <p>This report documents the results of the first phase of a two-phase program aimed at developing for the U. S. Air Force experimentally tested computer models to predict worst-case potentials for air quality degradation resulting from use of current and potential future turbine engine (jet) fuels. The development and testing of such models requires an adequate data base derived from appropriate environmental chamber experiments and laboratory studies. In Phase I of this two-phase program, a total of 131 environmental</p>		

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chamber experiments were carried out in a ~6400-liter, all Teflon® indoor environmental chamber and several kinetic measurements were made in order to obtain data required for model development. The chamber experiments included 47 single component-NO_x-air irradiations of various representative fuel constituents and potential future fuel impurities, 15 fuel-NO_x-air irradiations employing one whole and six synthetic surrogate fuels, and 69 control or characterization runs.

The compounds studied in the single component-NO_x-air irradiations included the representative fuel constituents n-butane, n-octane, and methylcyclohexane; the representative aromatic benzenes, toluene, m-xylene, mesitylene (1,3,5-trimethylbenzene), tetralin (1,2,3,4-tetrahydronaphthalene), naphthalene, and 2,3-dimethylnaphthalene; and the potential future impurities furan, thiophene, and pyrrole. Pyrrole, furan, and the methylbenzenes were found to be the most reactive in terms of rates of O₃ formation, with benzene, tetralin, the naphthalenes, and thiophene having intermediate reactivity, and the alkanes being, by far, the least reactive. The large differences in reactivity observed between these classes of compounds is primarily due to the differing effects their photooxidations have on radical levels in NO_x-air irradiations, with the OH radical rate constant determining relative reactivities within a given class of compounds.

The fuel-NO_x-air runs showed that changes in the composition of these fuels can significantly affect their atmospheric reactivity. Increasing the total level of aromatics in the 15-component synthetic fuel resulted in increased rates of O₃ production, but also resulted in lower maximum O₃ yields. In contrast, increasing the ratio of alkylbenzenes to bicyclic aromatics (with the total aromatic concentrations unchanged) increased both the O₃ formation rates and the maximum O₃ yields. The addition of small amounts (1-2% on a mole carbon basis) of furan or pyrrole to the fuel resulted in dramatic increases in O₃ production rates and also suppressed O₃ yields, but the addition of comparable amounts of thiophene to the fuel had a relatively minor effect. The implications of these results for the photooxidation mechanisms of these compounds are discussed.

In associated kinetic studies, OH radical rate constants were obtained for pyrrole, tetralin, 2-methylnaphthalene, 2,3-dimethylnaphthalene, an O₃ reaction rate constant was determined for pyrrole, and NO₃ radical rate constants were determined for furan, thiophene, and pyrrole for the first time.

The results of this program provide an important and necessary data base required for the development of models for the atmospheric reactions of current and future turbine engine fuels. The development and testing of such models will be carried out in the second phase of this two-part program.

This technical report is divided into two volumes. Volume I contains a detailed summary of the experimental results and a discussion of their significance. Volume II contains a tabulation of the environmental chamber data gathered during the course of the experimental phase of this program. Volume II will only be available from Defense Technical Information Center or National Technical Information Services.

PREFACE

This report was prepared by the Statewide Air Pollution Research Center (SAPRC) of the University of California, Riverside, California 92521, under Contract No. F08635-80-C-0359, with the Air Force Engineering and Services Center, Air Force Engineering and Services Laboratory (AFESL/RDS), Tyndall Air Force Base, Florida 32403.

This report describes the first phase of a two-phase program aimed at developing experimentally tested models for the atmospheric reactions of turbine engine fuels. This phase consists of the experimental studies necessary for model development and testing. The second phase will consist of the necessary model and software development.

This technical report is divided into two volumes. Volume I describes the experimental results and discusses their significance. Volume II tabulates environmental chamber data gathered during the experimental studies phase of this program. For most purposes, Volume I is complete in itself but a few people may find it necessary to use Volume II in conjunction with Volume I. Initial distribution of Volume II was not made, but a copy was submitted to the Defense Technical Information Center. Those who need to use Volume II may obtain copies from the Defense Technical Information Center or from the National Technical Information Service (addresses are listed on inside of front cover).


This work was carried out between June 1983 and June 1984 under the direction of Dr. William P. L. Carter and Dr. Arthur M. Winer, Co-Principal Investigators, and Dr. Roger Atkinson, Program Manager. The principal research staff on this program were Ms. Margaret C. Dodd, Mr. William D. Long, and Ms. Sara M. Aschmann. Assistance in processing the data was provided by Ms. Lori A. Luisi and Ms. Minn P. Poe, and assistance in preparation of this report was provided by Ms. I. M. Minnich and Ms. Christy J. LaClaire.

Dr. Daniel A. Stone, AFESC/RDVS, was Project Officer for this contract.

This report has been reviewed by the Public Affairs Office (PA) and is releasable to the National Technical Information Service (NTIS). At NTIS it will be available to the general public, including foreign nationals.

This technical report has been reviewed and is approved for publication.


DANIEL A. STONE
Project Officer


ROBERT F. OLMEAD, Lt Col, USAF, RSC
Chief, Environics Division


ROBERT E. BOREN, Col, USAF
Director, Engineering and Services Laboratory

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SECTION I

INTRODUCTION

To obtain an experimental data base required for the development and testing of computer models for the atmospheric reactions of present and future turbine engine fuels, a series of environmental chamber experiments was carried out using an ~6000-l all Teflon[®] chamber with a blacklight light source. The experiments can be categorized as follows:

- 47 single-component- NO_x -air irradiations employing the representative fuel constituents benzene, toluene, m-xylene, mesitylene (1,3,5-trimethylbenzene), tetralin (1,2,3,4-tetrahydronaphthalene), naphthalene, 2,3-dimethylnaphthalene, n-butane, n-octane, and methylcyclohexane, and the potential future fuel impurities furan, thiophene, and pyrrole.
- 15 fuel- NO_x -air irradiations employing a preliminary batch of shale-derived JP-4 and employing three formulations of a 15-component synthetic fuel, including one experiment each with furan, thiophene, or pyrrole added to one of the synthetic fuels as a model "impurity."
- 69 control or characterization runs, including 31 NO_x -air irradiations to measure the chamber radical source and contamination by reactive organics, NO_2 actinometry runs to monitor the light intensity, propene- NO_x -air irradiations for control purposes, ozone dark decay determinations, and an acetaldehyde-air irradiation to measure NO_x off-gassing rates.

Detailed tabulations of the data from all these runs, other than the NO_2 actinometry experiments, are given in Section II of this report. These tabulations are arranged in the order the runs were carried out. A concise chronological summary of the runs in this program, indicating the run number, type, and initial concentrations are given in Table I. This table also gives the results of the NO_2 actinometry measurements (i.e.,

TABLE 1. BRIEF CHRONOLOGICAL SUMMARY OF CHAMBER EXPERIMENTS AND RESULTS OF NO₂ ACTINOMETRY RUNS.

ITC run no.	Run type	Initial conc.		k_1^a (min ⁻¹)
		NO _x (ppm)	Organic (ppm) or fuel (ppmC)	
690	Propene-NO _x (new bag)	0.44	0.76	
691	NO ₂ actinometry	-	-	0.286
692	NO _x -air	0.50	-	
693	Propene-NO _x (1 run for another program)	0.49	1.10	
695	NO _x -air	0.50	-	
696	NO ₂ actinometry	-	-	0.286
697	Ozone decay	-	-	
698	Benzene-NO _x	0.50	13.9	
699	Toluene-NO _x	0.51	1.50	
700	NO _x -air	0.51	-	
701	NO ₂ actinometry	-	-	0.293
702	m-Xylene-NO _x	0.52	0.50	
703	Mesitylene-NO _x	0.50	0.58	
704	NO _x -air	0.52	-	
705	NO ₂ actinometry	-	-	0.285
706	Mesitylene-NO _x	0.50	0.29	
707	NO _x -air	1.01	-	
708	NO ₂ actinometry	-	-	0.304
709	Mesitylene-NO _x	1.00	0.52	
710	Benzene-NO _x	0.55	13.9	
711	Furan-NO _x	0.52	0.40	
712	NO _x -air	0.51	-	
713	Furan-NO _x	0.99	0.38	
714	NO _x -air	1.01	-	
715	Furan-NO _x	0.49	0.21	
716	Propene-NO _x	0.49	1.04	
717	NO _x -air	0.52	-	
718	NO ₂ actinometry	-	-	0.310
719 ^b	JP-4 (shale) injection (dark)	-	~50	
720	JP-4 (shale) injection (dark)	-	~50	
721	JP-4(shale)-NO _x	0.54	~100	
722	JP-4(shale)-NO _x	0.54	~50	
723	NO _x -air	0.51	-	
724	NO _x -air	0.52	-	
725	JP-4-NO _x	0.23	~50	
726	NO _x -air	0.51	-	
727	NO ₂ actinometry	-	-	0.346
728	Propene-NO _x	0.47	1.05	
729	Thiophene-NO _x	0.49	0.43	
730	Thiophene-NO _x	0.47	1.78	

TABLE 1. BRIEF CHRONOLOGICAL SUMMARY OF CHAMBER EXPERIMENTS AND RESULTS OF NO₂ ACTINOMETRY RUNS (CONTINUED).

ITC run no.	Run type	Initial conc.		
		NO _x (ppm)	Organic (ppm) or fuel (ppmC)	k ₁ ^a (min ⁻¹)
731	NO _x -air	0.53	-	
732	NO ₂ actinometry	-	-	0.337
733	Thiophene-NO _x	0.25	0.43	
734	NO _x -air	0.26	-	
735	Pyrrole-NO _x	0.49	~0.5	
736	Propene-NO _x (new bag)	0.45	0.51	
737	NO _x -air	0.59	-	
738	NO ₂ actinometry	-	-	0.328
739	Tetralin-NO _x	0.51	0.24	
740	NO _x -air	0.51	-	
741	NO ₂ actinometry	-	-	0.332
742	Mesitylene-NO _x	0.48	0.52	
743	Puran-NO _x	0.49	0.37	
744	Thiophene-NO _x	0.52	1.64	
745	NO _x -air	0.52	-	
746	NO ₂ actinometry	-	-	0.332
747	Tetralin-NO _x	0.49	9.3	
748	Tetralin-NO _x	0.22	8.4	
749	NO _x -air	0.23	-	
750	Tetralin-NO _x	0.53	4.4	
751	Naphthalene-NO _x	0.53	0.75	
752	NO _x -air	0.55	-	
753	NO ₂ actinometry	-	-	0.324
754	Propene-NO _x	0.56	0.98	
755	Naphthalene-NO _x	0.23	1.40	
756	Naphthalene-NO _x	0.26	2.74	
757	NO _x -air	0.25	-	
758	NO ₂ actinometry	-	-	0.321
759	Propene-NO _x	0.56	1.02	
760	NO _x -air	0.55	-	
761	NO _x -air + n-octane ^c	0.53	9.4	-
762	NO _x -air + n-octane	0.28	9.4	
763	NO _x -air + n-octane	0.27	0.96	
764	NO ₂ actinometry	-	-	0.320
765	NO _x -air + methylcyclohexane	0.51	0.92	
766	NO _x -air + methylcyclohexane	0.27	8.7	
767	NO _x -air + methylcyclohexane	0.56	8.8	
768	JF-4(shale)-NO _x	0.53	~100	
769	NO ₂ actinometry	-	-	0.309
770	NO _x -air + n-butane	0.55	9.4	
771	2,3-Dimethylnaphthalene-NO _x	0.27	0.40	

TABLE 1. BRIEF CHRONOLOGICAL SUMMARY OF CHAMBER EXPERIMENTS AND RESULTS OF NO₂ ACTINOMETRY RUNS (CONTINUED).

ITC run no.	Run type	Initial conc.		k_1^a (min ⁻¹)
		NO _x (ppm)	Organic (ppm) or fuel (ppmC)	
772	NO _x -air	0.45	-	
773	NO ₂ actinometry	-	-	0.322
774	2,3-Dimethylnaphthalene-NO _x	0.57	0.33	
775	2,3-Dimethylnaphthalene-NO _x	0.29	0.14	
776	NO _x -air	0.56	-	
727	NO ₂ actinometry	-	-	0.323
778	Pyrrole-NO _x	0.49	0.97	
779	Pyrrole-NO _x	0.49	~0.1	
780	NO _x -air + pyrrole ^d	0.49	0.27	
781	Synthetic fuel #1 - NO _x	0.52	43	
782	NO _x -air	0.48	-	
783	NO ₂ actinometry	-	-	0.319
784	Synthetic fuel #1 - NO _x	0.49	88	
785	Synthetic fuel #1 - NO _x	0.26	44	
786	Synthetic fuel #1 + furan - NO _x	0.49	72	
787	NO _x -air	0.26	-	
788	Synthetic fuel #1 + thiophene - NO _x	0.49	89	
789	NO _x -air	0.49	-	
790	NO ₂ actinometry	-	-	0.302
791	Propene-NO _x	0.53	0.95	
792	Propene-NO _x (new bag)	0.34	0.98	
793	NO _x -air	0.40	-	
794	NO ₂ actinometry	-	-	0.350
795	Synthetic fuel #2 - NO _x	0.50	45	
796	Synthetic fuel #2 - NO _x	0.53	97	
797	NO _x -air + n-octane	0.55	0.91	
798	Naphthalene-NO _x	0.55	1.93	
799	Synthetic fuel #3 - NO _x	0.55	94	
800	NO _x -air + methylcyclohexane	0.54	1.10	
801	Synthetic fuel #3 - NO _x	0.55	41	
802	Naphthalene-NO _x	0.53	0.84	
803	NO _x -air	0.29	-	
804	NO ₂ actinometry	-	-	0.322
805	Synthetic fuel #1 - NO _x	0.58	98	
806	2,3-Dimethylnaphthalene-NO _x	0.33	0.49	
807	Synthetic fuel #1 + pyrrole - NO _x	0.49	77	
808	NO _x -air	0.46	-	
809	NO ₂ actinometry	-	-	0.341

TABLE 1. BRIEF CHRONOLOGICAL SUMMARY OF CHAMBER EXPERIMENTS AND RESULTS OF NO₂ ACTINOMETRY RUNS (CONCLUDED).

ITC run no.	Run type	Initial conc.		k_1^a (min ⁻¹)
		NO _x (ppm)	Organic (ppm) or fuel (ppmC)	
810	Propene-NO _x (2 runs for another program)	0.52	0.93	
813	NO ₂ actinometry	-	-	0.339
814	NO _x -air (8 runs for another program)	0.53	-	
822	Ozone decay (1 run for another program)	-	-	
824	NO _x -air	0.40	-	
825	Acetaldehyde-air	-	~0.4	
826	NO _x -air + mesitylene	0.89	0.09	
827	NO _x -air + m-xylene	1.05	0.14	
828	NO _x -air + toluene	1.01	0.43	
829	NO _x -air	0.26	-	
830	NO ₂ actinometry	-	-	0.339
831	NO _x -air + benzene	1.00	2.0	
832	NO _x -air + tetralin	1.00	3.9	
833	NO ₂ actinometry			0.331

^aNO₂ photolysis rate measured in NO₂ actinometry runs.

^bNo data tabulation for this run.

^cThe organic was added after a ~2 hour NO_x-air irradiation. "Initial" organic listed is the amount added.

^dTwo pyrrole injections of ~0.1 ppm made.

k_1 , the NO₂ photolysis rate), since those data are not included in Section II. Gaps in the sequence of run numbers in Table 1 indicate runs carried out for other programs, whose results are not included in this report. A more detailed chronological summary, and other summaries of results of the various types of runs, are given in Volume I, and are thus not reproduced here.

The data tabulations given in Section II include the following information (where applicable):

- The indoor Teflon[®] chamber (ITC) run number.
- A brief run description.
- The date the run was carried out (given below the run description).
- The date the tabulation was printed (given in right hand corner on each page).
- Comments for the run, including experimental operations and operator's comments taken from the log book, problems encountered (if any), etc.
- The ITC bag number. Three reaction bags were used, numbered 101 through 103.
- The NO₂ photolysis rate (k_1) assigned for this run (see Volume I).
- The initial concentrations of injected reactants which were monitored.
- The average temperature, its the (1σ) standard deviation.
- Lists of all instruments used in these runs. For each instrument, this list indicates the ID number (used internally at SAPRC), the label identifying the instrument on the data tabulation, and a brief description giving information identifying the instrument and/or technique.
- The data tabulations. The tabulations indicate the compound or parameter measured, the units in which the measurements are reported, and the instrument. Because of space and format limitations, the compound names frequently had to be abbreviated on the tabulations. The meanings of representative abbreviations which may not be obvious are listed in Table 2. For each data point, the clock time and the elapsed time (in minutes) since the irradiation began (or since the first measurement for dark runs) are indicated.

TABLE 2. REPRESENTATIVE ABBREVIATIONS USED IN THE DATA TABULATIONS.

Abbreviation	Meaning
NO ₂ -UNC	NO ₂ readings, uncorrected for interferences by organic nitrates and HNO ₃
N-C8	n-Octane
I-C4	Isobutane
CYC-C6	Cyclohexane
MECYC-C6	Methylcyclohexane
ETCYC-C6	Ethylcyclohexane
I-C4=	Isobutene
T2-C4=	<u>trans</u> -2-Butene
M-XYL	m-Xylene
135-TMB	Mesitylene (1,3,5-trimethylbenzene)
I-C3-BENZ	Cumene (isopropylbenzene)
2-MENAPH	2-Methylnaphthalene
2,3-DMN	2,3-Dimethylnaphthalene
MEK	Methyl ethyl ketone ^a
PROX	Propene oxide ^a
BUTYRAL	Butyraldehyde ^a
LN C4/C3=	ln([n-butane]/[propene]), whose rate of change is used to derive OH radical concentrations ^b
RT-11.78	An unidentified compound which has a retention time of 11.78 minutes on the GC system employed
UNKN #1	An unidentified fuel constituent

^aOr some other computer with the same retention time on the C-600 GC.

^bConcentration units are arbitrary; only the slope of the log is of interest.

- If any of the data are flagged (indicated by an "A", or "B", etc., immediately to the right of the value), footnotes giving the reason it is flagged appear at the end of the tabulation for the run.

The data tabulated in Section II are also available in computer readable format. Interested persons should contact Dr. W. P. L. Carter at SAPRC for more information.

SECTION II

CHAMBER DATA TABULATIONS

ITC-690
PROPENE - NOX CONDITIONING
1983 NOVEMBER 23

NEW BAG #101 INSTALLED
0816: FIRST FILL.
0840: SECOND FILL.
0920: THIRD FILL.
0933: INJECTIONS: 0.4 PPM NO, 0.1 PPM NO2, 0.8 PPM PROPENE.
0945: 70% LIGHTS.
1500: DUMPED AND FILLED TWICE.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.6	2.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.211	PPM
NO2-UNC	T 14B-1	0.226	PPM
PROPENE	DMS-1	0.7561	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	DASIBI 1070 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-690
PROPENE - NOX CONDITIONING
1983 NOVEMBER 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	PAN PPH ECD-1	ACET PP 10'C-
1 930	-15	0.001	0.004	0.019	0.019	-----	-----	---
1 945	0	0.001	0.211	0.226	0.423	0.7561	-----	---
1 1000	15	0.005	0.161	0.287	0.433	-----	-----	---
1 1015	30	0.020	0.000	0.329	0.429	-----	-----	---
1 1030	45	0.047	0.000	0.366	0.424	-----	-----	---
1 1045	60	0.097	0.000	0.377	0.409	-----	-----	---
1 1100	75	0.150	0.000	0.375	0.395	-----	-----	---
1 1115	90	0.216	0.000	0.367	0.381	-----	-----	---
1 1130	105	0.280	0.000	0.355	0.366	-----	-----	---
1 1145	120	0.341	0.000	0.347	0.352	-----	-----	---
1 1200	135	0.395	0.000	0.333	0.336	-----	-----	---
1 1215	150	0.440	0.000	0.324	0.323	-----	-----	---
1 1230	165	0.477	0.011	0.315	0.314	-----	-----	---
1 1245	180	0.508	0.009	0.302	0.302	-----	-----	---
1 1300	195	0.533	0.010	0.296	0.296	-----	-----	---
1 1315	210	0.554	0.008	0.289	0.288	-----	-----	---
1 1330	225	0.570	0.008	0.283	0.283	-----	-----	---
1 1345	240	0.585	0.009	0.279	0.279	-----	-----	---
1 1400	255	0.588	0.008	0.277	0.276	0.0432	0.073	0.2
1 1415	270	0.599	0.008	0.274	0.274	-----	-----	---
1 1430	285	0.602	0.009	0.272	0.272	-----	-----	---
1 1445	300	0.597	0.009	0.271	0.271	-----	-----	---

----- NO DATA TAKEN

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PAGE 2

-UNC PM 4B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	PAN PPH ECD-1	ACETALD PPH 10'C-600	T DEG C ANA-TEMP
.019	0.019	-----	-----	-----	-----
.226	0.423	0.7561	-----	-----	16.6
.287	0.433	-----	-----	-----	22.5
.329	0.429	-----	-----	-----	25.7
.366	0.424	-----	-----	-----	26.4
.377	0.409	-----	-----	-----	26.5
.375	0.395	-----	-----	-----	26.6
.367	0.381	-----	-----	-----	27.0
.355	0.366	-----	-----	-----	27.2
.347	0.352	-----	-----	-----	27.2
.333	0.336	-----	-----	-----	27.3
.324	0.323	-----	-----	-----	27.5
.315	0.314	-----	-----	-----	27.5
.302	0.302	-----	-----	-----	27.6
.296	0.296	-----	-----	-----	27.4
.289	0.288	-----	-----	-----	27.4
.283	0.283	-----	-----	-----	27.6
.279	0.279	-----	-----	-----	27.8
.277	0.276	0.0432	0.073	0.2157	28.0
.274	0.274	-----	-----	-----	28.0
.272	0.272	-----	-----	-----	28.2
.271	0.271	-----	-----	-----	29.2

ITC-692
NOX - AIR IRRADIATION
1983 NOV 28

PURPOSE: DETERMINE BACKGROUND CHAMBER REACTIVITY.

1335: FIRST FILL
1349: 2ND FILL
1359: 3RD AND FINAL FILL. WET BULB = 69 F, DRY = 80 F.
"50% RH AT 85 F.
1420: INJECTIONS: 0.064 ML EACH PROPENE, N-C4
0.4 PPM NO, 0.1 PPM NO2, NOMINAL
1430: SUPPLEMENTAL NO INJECTION OF 0.1 PPM NOMINAL; TECO
READ 0.3 PPM AFTER 1420 INJECTION.
1445: LIGHTS ON. 70% LIGHTS.
1640: DUMP AND RE-FILL, TWICE.

T=0 AT 1445 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.1	1.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.394	PPM
NO2-UNC	T 14B-1	0.114	PPM
PROPENE	DMS-1	0.0100	PPM
N-C4	DMS-1	0.0101	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1070	D-1070	BASIDI 1070 OZONE MONITOR
2100	PH-1	RH-1211 POROPAK-N SCI FID
2920	10'C-600	RH-1211 10' 10% CARBONAX-600 SCI FID
2000	ECB-1	RH-1211 12' 5% CARBONAX-400 SCI ECB
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE SCI FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-492
NOX - AIR IRRADIATION
1983 NOV 28

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-
1 1405	-40	-----	-----	-----	-----	-----	0.0007	0.00
1 1415	-30	0.001	0.005	0.016	0.016	-----	-----	-----
1 1430	-15	0.002	0.310	0.110	0.414	1.020	0.0098	0.01
1 1435	-10	-----	-----	-----	-----	-----	-----	-----
1 1445	0	0.001	0.394	0.114	0.502	1.010	0.0100	0.01
1 1500	15	0.002	0.398	0.117	0.507	1.058	0.0093	0.00
1 1515	30	0.002	0.395	0.117	0.504	1.084	0.0089	0.00
1 1530	45	0.002	0.394	0.115	0.503	1.149	0.0087	0.00
1 1545	60	0.002	0.391	0.119	0.505	1.170	0.0084	0.00
1 1600	75	0.002	0.390	0.120	0.504	1.239	0.0080	0.01
1 1615	90	0.002	0.388	0.125	0.503	1.272	0.0076	0.00
1 1630	105	0.002	0.386	0.120	0.501	1.308	0.0074	0.00
1 1635	110	-----	-----	-----	-----	-----	-----	-----
1 1645	120	0.002	0.384	0.125	0.503	1.349	0.0070	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	PAN PPH ECB-1	ACETA PPH 10'C-4
1 1405	-40	0.0069	0.0054	0.0060	0.0033	0.0003	0.000	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC M B-1	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T DEG C ANA-TEMP	HCHO PPH CA	METHANE PPH PN-1	ETHENE PPH PN-1
---	-----	0.0007	0.0001	-----	-----	1.84	0.0154
016	-----	-----	-----	-----	-----	-----	-----
414	1.020	0.0098	0.0100	-----	-----	-----	-----
---	-----	-----	-----	-----	0.004	-----	-----
502	1.010	0.0100	0.0101	22.5	-----	-----	-----
507	1.058	0.0093	0.0098	26.8	-----	-----	-----
504	1.084	0.0089	0.0096	27.9	-----	-----	-----
503	1.149	0.0087	0.0099	28.5	-----	-----	-----
505	1.170	0.0084	0.0098	27.7	-----	-----	-----
504	1.239	0.0080	0.0100	27.7	-----	-----	-----
503	1.272	0.0076	0.0097	27.7	-----	-----	-----
501	1.308	0.0074	0.0097	27.8	-----	-----	-----
---	-----	-----	-----	-----	0.014	-----	-----
503	1.369	0.0070	0.0096	27.8	-----	-----	-----
ANE M I-1	I-C4 PPH DMS-1	PAN PPH ECD-1	ACETALD PPH 10'C-600				
0033	0.0003	0.000	0.0026				

ITC-493
PROPENE - NOX
1983 NOV 29

PURPOSE: STANDARD CONTROL RUN

0810: FIRST FILL
0825: 2ND FILL
0838: 3RD AND FINAL FILL. ~50% RH AT 85 F.
0930: INJECTIONS: 2.56 ML NO, 0.47 ML NO SUPPLEMENT,
0.64 ML NO2, AND 6.4 ML PROPENE.
0945: LIGHTS ON. 70% LIGHTS.
1600: DUMP AND REFILL

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.4	1.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.384	PPH
NO2-UNC	T 14B-1	0.107	PPH
PROPENE	DMS-1	1.0976	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2000	ECB-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RH-121; POROPAK-N GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-400 GC; FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-693
PROPENE - NOX
1983 NOV 29

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	T DEG C ANA-TEMP	PROPENE PPH DMS-1	PAN PPH ECD-
1 843	-62	-----	-----	-----	-----	-----	0.0006	0.0
1 930	-15	0.001	0.379	0.109	0.485	-----	-----	-----
1 931	-14	-----	-----	-----	-----	-----	1.063	-----
1 940	-5	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.001	0.384	0.107	0.488	22.5	1.098	0.0
1 1000	15	0.001	0.345	0.148	0.489	26.7	-----	-----
1 1015	30	0.002	0.285	0.201	0.483	27.3	-----	-----
1 1030	45	0.002	0.218	0.262	0.477	27.7	-----	-----
1 1045	60	0.008	0.151	0.320	0.468	28.1	0.9066	0.0
1 1100	75	0.033	0.091	0.371	0.460	28.2	-----	-----
1 1115	90	0.077	0.049	0.400	0.446	28.3	-----	-----
1 1130	105	0.156	0.026	0.411	0.431	28.4	-----	-----
1 1145	120	0.253	0.015	0.402	0.411	28.5	0.5840	0.0
1 1200	135	0.353	0.010	0.385	0.393	28.6	-----	-----
1 1215	150	0.447	0.008	0.368	0.374	28.8	-----	-----
1 1230	165	0.526	0.006	0.353	0.357	28.8	-----	-----
1 1245	180	0.584	0.005	0.340	0.343	28.8	0.2185	0.1
1 1300	195	0.636	0.005	0.330	0.333	28.9	-----	-----
1 1315	210	0.673	0.005	0.322	0.325	28.9	-----	-----
1 1330	225	0.705	0.005	0.313	0.316	29.0	-----	-----
1 1345	240	0.727	0.004	0.307	0.309	29.0	0.0692	0.2
1 1400	255	0.745	0.004	0.301	0.304	29.0	-----	-----
1 1415	270	0.757	0.004	0.297	0.299	29.1	-----	-----
1 1430	285	0.765	0.004	0.292	0.294	29.1	-----	-----
1 1445	300	0.774	0.004	0.288	0.291	29.2	0.0212	0.2
1 1500	315	0.774	0.004	0.285	0.288	29.3	-----	-----
1 1515	330	0.777	0.004	0.283	0.285	29.3	-----	-----
1 1530	345	0.778	0.004	0.280	0.282	29.3	-----	-----
1 1535	350	-----	-----	-----	-----	-----	-----	-----
1 1545	360	0.779	0.004	0.276	0.278	29.4	0.0070	0.1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PM-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PM-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	N-C4 PPH DMS-1	ACET PPH 10'C-
1 843	-62	0.0047	0.0116	0.0125	0.0025	0.0003	0.0004	0.0
1 945	0	-----	-----	-----	-----	-----	-----	0.0
1 1545	360	0.0078	-----	0.0084	-----	-----	-----	-----

----- NO DATA TAKEN

27-JUL-84
PAGE 2

-UNC PH 4B-1	T DEG C ANA-TEMP	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	METHANE PPH PN-1	ETHENE PPH PN-1
----	-----	0.0006	0.000A	-----	-----	2.06	0.0053
.485	-----	-----	-----	-----	-----	-----	-----
-----	-----	1.063	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.010	-----	-----	-----
.488	22.5	1.098	0.000	-----	-----	-----	-----
.489	26.7	-----	-----	-----	-----	-----	-----
.483	27.3	-----	-----	-----	-----	-----	-----
.477	27.7	-----	-----	-----	-----	-----	-----
.468	28.1	0.9066	0.005	0.152	-----	-----	-----
.460	28.2	-----	-----	-----	0.116	-----	-----
.446	28.3	-----	-----	-----	-----	-----	-----
.431	28.4	-----	-----	-----	-----	-----	-----
.411	28.5	0.5840	0.037	0.281	0.268	-----	-----
.393	28.6	-----	-----	-----	-----	-----	-----
.374	28.8	-----	-----	-----	-----	-----	-----
.357	28.8	-----	-----	-----	-----	-----	-----
.343	28.8	0.2185	0.139B	0.416	0.321	-----	-----
.333	28.9	-----	-----	-----	-----	-----	-----
.325	28.9	-----	-----	-----	-----	-----	-----
.316	29.0	-----	-----	-----	-----	-----	-----
.309	29.0	0.0692	0.241C	0.279	0.295	-----	-----
.304	29.0	-----	-----	-----	-----	-----	-----
.299	29.1	-----	-----	-----	-----	-----	-----
.294	29.1	-----	-----	-----	-----	-----	-----
.291	29.2	0.0212	0.279D	0.416	0.254	-----	-----
.288	29.3	-----	-----	-----	-----	-----	-----
.285	29.3	-----	-----	-----	-----	-----	-----
.282	29.3	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.356	-----	-----	-----
.278	29.4	0.0070	0.311D	-----	0.209	1.75	0.0021

IPANE PH IS-1	I-C4 PPH DMS-1	N-C4 PPH DMS-1	ACETONE PPH 10'C-600	MEK PPH 10'C-600
0025	0.0003	0.0004	0.0002	0.0005
-----	-----	-----	0.0003	0.0006
-----	-----	-----	-----	-----

ITC-493
PROPENE - NOX
1983 NOV 29

NOTES

- A STANDING CURRENT = 70% @ X64, CELL VOLTAGE IS 100%. NORMAL STANDING CURRENT IS 75%. DATA CORRECTED BY FACTOR OF 75/70.
- B 50 ML SAMPLE DILUTED WITH 50 ML N2.
- C 20 ML SAMPLE DILUTED WITH 80 ML N2.
- D 10 ML SAMPLE DILUTED WITH 90 ML N2.

ITC-695
NOX - AIR IRRADIATION
1983 DEC 1

PURPOSE: DETERMINE CHAMBER BACKGROUND REACTIVITY.

0808: FIRST FILL.
0824: 2ND FILL.
0843: 3RD AND FINAL FILL. ~50% RH AT 85 F.
0920: INJECTIONS: 3.16 ML NO, 0.64 ML NO2,
0.064 ML EACH PROPENE AND N-C4.
0945: LIGHTS ON. 70% LIGHTS.
1147: DUMP BAG.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.7	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.399	PPM
NO2-UNC	T 14B-1	0.103	PPM
PROPENE	DMS-1	0.0109	PPM
N-C4	DMS-1	0.0103	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-695
NOX - AIR IRRADIATION
1983 DEC 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C PP DMS
1 846	-59	-----	-----	-----	-----	-----	0.0007	0.0
1 914	-31	0.002	0.005	0.017	0.019	-----	-----	-----
1 924	-21	-----	-----	-----	-----	0.9170	0.0111	0.0
1 930	-15	0.002	0.396	0.101	0.492	-----	-----	---
1 945	0	0.002	0.399	0.103	0.495	0.9479	0.0109	0.0
1 1000	15	0.002	0.399	0.101	0.495	0.9668	0.0104	0.0
1 1015	30	0.002	0.398	0.103	0.495	0.9936	0.0103	0.0
1 1025	40	-----	-----	-----	-----	1.016	0.0100	0.0
1 1030	45	0.002	0.393	0.105	0.492	-----	-----	---
1 1045	60	0.002	0.392	0.109	0.492	1.057	0.0095	0.0
1 1100	75	0.002	0.387	0.111	0.490	1.112	0.0092	0.0
1 1115	90	0.002	0.384	0.109	0.487	1.140	0.0090	0.0
1 1130	105	0.002	0.380	0.112	0.486	1.200	0.0081	0.0
1 1135	110	-----	-----	-----	-----	-----	-----	---
1 1145	120	0.002	0.378	0.113	0.486	1.219	0.0081	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ACET PP 10'C-
1 846	-59	0.0070	0.0080	0.0047	0.0049	0.0035	0.0005	0.0

----- NO DATA TAKEN

27-JUL-84
PAGE 2

-UNC PH	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	T DEG C ANA-TEMP	HCHO PPH CA	MEK PPH 10'C-600	METHANE PPH PN-1
----	-----	0.0007	0.0003	-----	-----	0.0006	1.88
.019	-----	-----	-----	-----	-----	-----	-----
----	0.9170	0.0111	0.0101	-----	-----	-----	-----
.492	-----	-----	-----	-----	0.014	-----	-----
.495	0.9479	0.0109	0.0103	27.8	-----	-----	-----
.495	0.9468	0.0104	0.0100	27.8	-----	-----	-----
.495	0.9936	0.0103	0.0103	27.9	-----	-----	-----
----	1.016	0.0100	0.0101	-----	-----	-----	-----
.492	-----	-----	-----	28.1	-----	-----	-----
.492	1.057	0.0095	0.0100	28.0	-----	-----	-----
.490	1.112	0.0092	0.0102	27.1	-----	-----	-----
.487	1.140	0.0090	0.0102	27.3	-----	-----	-----
.486	1.200	0.0081	0.0098	27.5	-----	-----	-----
----	-----	-----	-----	-----	0.022	-----	-----
.486	1.219	0.0081	0.0098	27.7	-----	-----	-----

YLEN PPH IS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PAN PPH ECD-1
0049	0.0035	0.0005	0.0014	0.0004	0.000

ITC-697
03 DARK DECAY
1983 DEC 1

PURPOSE: DETERMINE OZONE DARK DECAY RATE.

DEC 1:

1450: BAG FILLED AND DUMPED TWICE
FINAL FILL WITH DRY PURE AIR.
1612: PEN-RAY LAMP ON FOR 14 MINUTES.
D-1070 ON ITC.
1637: D-1070 OFF ITC.

DEC 2:

0805: D-1070 ON ITC.
0817: DUMP AND FILL

T=0 AT 1631 PST

BAG NO. 101 USED

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070
1 1631	0	1.141
1 1633	2	1.138
1 1636	5	1.138
2 809	938	0.948
2 812	941	0.960

----- NO DATA TAKEN

ITC-698
BENZENE - NOX
1983 DEC 2

0805: DASIBI ON ITC.
0809: O3 = .948
0812: O3 = .960
0817: FIRST FILL.
0832: SECOND FILL.
0850: THIRD FILL. 71 F WET BULB, 81 F DRY BULB.
0920: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 347.0 MICROLITERS BENZENE.
1550: DUMP AND REFILL.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.5	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.396	PPM
NO2-UNC	T 14B-1	0.103	PPM
BENZENE	10'C-600	13.9163	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-121; POROPAK-N GC; FID
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-698
 BENZENE - NOX
 1983 DEC 2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	BENZENE PPH 10'C-600	HCHO PPH CA	DE ANA-
1 902	-43	-----	-----	-----	-----	-----	-----	---
1 915	-30	-----	0.005	0.015	0.016	-----	-----	---
1 930	-15	-----	0.000	0.101	0.497	-----	-----	---
1 939	-6	-----	-----	-----	-----	13.90	-----	---
1 940	-5	-----	-----	-----	-----	-----	0.010	---
1 945	0	0.002	0.396	0.103	0.494	13.92	-----	---
1 1000	15	0.001	0.380	0.121	0.495	-----	-----	---
1 1015	30	0.002	0.351	0.145	0.491	-----	-----	---
1 1030	45	0.004	0.316	0.170	0.481	-----	-----	---
1 1045	60	0.010	0.276	0.199	0.471	-----	0.014	---
1 1055	70	-----	-----	-----	-----	13.78	-----	---
1 1100	75	0.016	0.235	0.233	0.460	-----	-----	---
1 1115	90	0.021	0.189	0.265	0.449	-----	-----	---
1 1130	105	0.032	0.147	0.295	0.436	-----	-----	---
1 1145	120	0.053	0.108	0.312	0.417	13.53	0.014	---
1 1200	135	0.067	0.073	0.331	0.394	-----	-----	---
1 1215	150	0.102	0.047	0.319	0.364	-----	-----	---
1 1230	165	0.139	0.031	0.297	0.325	-----	-----	---
1 1245	180	0.192	0.019	0.257	0.274	12.95	0.016	---
1 1300	195	0.247	0.011	0.207	0.212	-----	-----	---
1 1315	210	0.311	0.006	0.141	0.146	-----	-----	---
1 1330	225	0.363	0.003	0.091	0.093	-----	-----	---
1 1345	240	0.374	0.002	0.065	0.067	-----	0.018	---
1 1350	245	-----	-----	-----	-----	12.34	-----	---
1 1400	255	0.373	0.002	0.053	0.054	-----	-----	---
1 1415	270	0.358	0.002	0.046	0.047	-----	-----	---
1 1430	285	0.345	0.002	0.042	0.044	-----	-----	---
1 1445	300	0.331	0.002	0.040	0.041	11.74	0.020	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETONE PPH 10'C-600	HEK PPH 10'C-600	PRO P DM
1 902	-43	0.0070	0.0046	0.0008	0.0005	0.0005	0.0005	0.

----- NO DATA TAKEN

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PAGE 2

OX-UNC PPH 14B-1	BENZENE PPH 10'C-600	HCHO PPH CA	T DEG C ANA-TEMP	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1
-----	-----	-----	-----	1.72	0.0065	0.0053
0.016	-----	-----	-----	-----	-----	-----
0.497	-----	-----	-----	-----	-----	-----
-----	13.90	-----	-----	-----	-----	-----
-----	-----	0.010	-----	-----	-----	-----
0.494	13.92	-----	27.9	-----	-----	-----
0.495	-----	-----	28.4	-----	-----	-----
0.491	-----	-----	28.5	-----	-----	-----
0.481	-----	-----	28.3	-----	-----	-----
0.471	-----	0.014	28.4	-----	-----	-----
-----	13.78	-----	-----	-----	-----	-----
0.460	-----	-----	28.4	-----	-----	-----
0.449	-----	-----	28.4	-----	-----	-----
0.436	-----	-----	28.5	-----	-----	-----
0.417	13.53	0.014	28.7	-----	-----	-----
0.394	-----	-----	28.8	-----	-----	-----
0.364	-----	-----	28.7	-----	-----	-----
0.325	-----	-----	28.3	-----	-----	-----
0.274	12.95	0.016	28.9	-----	-----	-----
0.212	-----	-----	29.0	-----	-----	-----
0.146	-----	-----	29.1	-----	-----	-----
0.093	-----	-----	28.0	-----	-----	-----
0.067	-----	0.018	28.2	-----	-----	-----
-----	12.34	-----	-----	-----	-----	-----
0.054	-----	-----	28.5	-----	-----	-----
0.047	-----	-----	28.5	-----	-----	-----
0.044	-----	-----	28.3	-----	-----	-----
0.041	11.74	0.020	28.3	-----	-----	-----

N-C4 PPH DMS-1	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0.0005	0.0005	0.0005	0.0035	0.0005

ITC-699
TOLUENE - NOX
1983 DEC 5

0808: FIRST FILL.
0825: SECOND FILL.
0841: THIRD FILL. 50% R.H. AT 85 F.
0915: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
41.5 MICROLITERS TOLUENE.
0930: 70% LIGHTS.
1412: DUMPED BAG; REFILLED TWICE.

T=0 AT 930 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.6	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.389	PPM
NO2-UNC	T 14B-1	0.117	PPM
TOLUENE	10'C-600	1.5021	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RH-1211 POROPAK-N GC; FID
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-699
TOLUENE - NOX
1983 DEC 5

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	TOLUENE PPH 10'C-600	T DEG C ANA-TEMP	PAN PPH ECD-1
1 848	-42	-----	-----	-----	-----	-----	-----	0.00
1 900	-30	0.002	0.004	0.017	0.022	-----	-----	-----
1 915	-15	0.002	0.391	0.118	0.505	-----	-----	-----
1 922	-8	-----	-----	-----	-----	1.502	-----	-----
1 925	-5	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.001	0.389	0.117	0.503	1.502	27.0	0.00
1 945	15	0.002	0.366	0.139	0.502	-----	27.1	-----
1 1000	30	0.001	0.316	0.183	0.497	-----	27.3	-----
1 1015	45	0.002	0.245	0.242	0.484	-----	27.6	-----
1 1030	60	0.016	0.163	0.302	0.463	1.401	27.8	0.00
1 1045	75	0.041	0.095	0.345	0.438	-----	27.9	-----
1 1100	90	0.089	0.053	0.353	0.404	-----	28.1	-----
1 1115	105	0.158	0.031	0.333	0.362	-----	28.2	-----
1 1130	120	0.229	0.020	0.294	0.314	1.210	28.3	0.05
1 1145	135	0.305	0.014	0.253	0.266	-----	28.5	-----
1 1200	150	0.378	0.011	0.213	0.223	-----	27.4	-----
1 1215	165	0.441	0.009	0.179	0.187	-----	27.1	-----
1 1230	180	0.477	0.009	0.156	0.163	1.004	27.3	0.13
1 1245	195	0.485	0.008	0.142	0.149	-----	27.5	-----
1 1300	210	0.480	0.008	0.136	0.142	-----	27.4	-----
1 1315	225	0.466	0.007	0.132	0.139	-----	27.4	-----
1 1330	240	0.458	0.007	0.131	0.137	0.8752	27.4	0.14
1 1345	255	0.445	0.007	0.132	0.138	-----	27.4	-----
1 1400	270	0.434	0.007	0.132	0.138	0.8465	27.4	0.14

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPEN PPH DMS-1
1 848	-42	1.57	0.0053	0.0031	0.0003	0.0024	0.0078	0.000
1 1030	60	-----	-----	0.0030	0.0002	0.0015	-----	0.000
1 1130	120	-----	-----	0.0029	0.0002	0.0015	-----	0.000
1 1230	180	-----	-----	0.0028	0.0003	0.0014	-----	0.000
1 1330	240	-----	-----	0.0030	0.0004	0.0013	-----	0.000
1 1400	270	-----	-----	0.0026	0.0004	0.0014	-----	0.000

----- NO DATA TAKEN

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UNC PH IB-1	TOLUENE PPH 10'C-600	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600
-----	-----	-----	0.000	-----	0.0013	0.0007	0.0025
.022	-----	-----	-----	-----	-----	-----	-----
.505	-----	-----	-----	-----	-----	-----	-----
-----	1.502	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.016	-----	-----	-----
.503	1.502	27.0	0.000	-----	-----	-----	-----
.502	-----	27.1	-----	-----	-----	-----	-----
.497	-----	27.3	-----	-----	-----	-----	-----
.484	-----	27.6	-----	-----	-----	-----	-----
.463	1.401	27.8	0.008	0.028	-----	-----	-----
.438	-----	27.9	-----	-----	-----	-----	-----
.404	-----	28.1	-----	-----	-----	-----	-----
.362	-----	28.2	-----	-----	-----	-----	-----
.314	1.210	28.3	0.054A	0.047	-----	-----	-----
.266	-----	28.5	-----	-----	-----	-----	-----
.223	-----	27.4	-----	-----	-----	-----	-----
.187	-----	27.1	-----	-----	-----	-----	-----
.163	1.004	27.3	0.135B	0.061	-----	-----	-----
.149	-----	27.5	-----	-----	-----	-----	-----
.142	-----	27.4	-----	-----	-----	-----	-----
.139	-----	27.4	-----	-----	-----	-----	-----
.137	0.8752	27.4	0.140B	-----	-----	-----	-----
.138	-----	27.4	-----	-----	-----	-----	-----
.138	0.8465	27.4	0.145B	0.091	-----	-----	-----

C4 PH B-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
0003	0.0024	0.0078	0.0005	0.0067	0.0072
0002	0.0015	-----	0.0004	0.0065	-----
0002	0.0015	-----	0.0004	0.0067	-----
0003	0.0014	-----	0.0002	0.0073	-----
0004	0.0013	-----	0.0001	0.0078	-----
0004	0.0014	-----	0.0001	0.0080	-----

ITC-699
TOLUENE - NOX
1983 DEC 5

NOTES

A 50 ML SAMLE IN 50 ML OF NITROGEN.
B 20 ML SAMPLE IN 80 ML OF NITROGEN.

ITC-700
NOX-AIR IRRADIATION
1983 DECEMBER 6

0808: FIRST FILL.
0817: SECOND FILL.
0832: THIRD FILL. 50% R.H. AT 85 F.
0905: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
0.064 ML N-BUTANE.

1131: DUMPED BAG.

T=0 AT 930 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.8	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.397	PPM
NO2-UNC	T 14B-1	0.121	PPM
PROPENE	DMS-1	0.0112	PPM
N-C4	DMS-1	0.0105	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	CHAMP; DINETHYLSULFOLANE GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-700
NOX-AIR IRRADIATION
1983 DECEMBER 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1
1 835	-55	-----	-----	-----	-----	0.500	0.0006	0.000
1 900	-30	0.001	0.010	0.024	0.033	0.937	0.0109	0.010
1 908	-22	-----	-----	-----	-----	-----	-----	-----
1 915	-15	0.001	0.398	0.122	0.516	-----	-----	-----
1 920	-10	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.002	0.397	0.121	0.515	0.941	0.0112	0.010
1 945	15	0.001	0.398	0.121	0.516	0.993	0.0105	0.010
1 1000	30	0.001	0.394	0.123	0.513	1.028	0.0101	0.010
1 1015	45	0.001	0.203	0.000	0.146	1.078	0.0094	0.010
1 1030	60	0.002	0.389	0.136	0.521	1.147	0.0090	0.010
1 1045	75	0.001	0.383	0.135	0.515	1.209	0.0083	0.010
1 1100	90	0.002	0.376	0.140	0.512	1.293	0.0078	0.010
1 1115	105	0.001	0.371	0.141	0.505	1.340	0.0074	0.009
1 1120	110	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.001	0.366	0.145	0.503	1.443	0.0068	0.009

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1 835	-55	0.0044	0.0046	0.0048	0.0007	0.0005	0.0030	0.000

----- NO DATA TAKEN

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PAGE 2

UNC PM 4B-1	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	T DEG C ANA-TEMP	PAN PPH ECD-1	METHANE PPH PN-1
-----	0.500	0.0006	0.0003	-----	-----	0.000	1.57
.033	-----	-----	-----	-----	-----	-----	-----
-----	0.937	0.0109	0.0102	-----	-----	-----	-----
.516	-----	-----	-----	0.008	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
.515	0.941	0.0112	0.0105	-----	27.1	-----	-----
.516	0.993	0.0105	0.0105	-----	27.2	-----	-----
.513	1.028	0.0101	0.0103	-----	27.4	-----	-----
.146	1.078	0.0094	0.0102	-----	27.7	-----	-----
.521	1.147	0.0090	0.0103	-----	27.9	-----	-----
.515	1.209	0.0083	0.0100	-----	28.0	-----	-----
.512	1.293	0.0078	0.0101	-----	28.2	-----	-----
.505	1.340	0.0074	0.0099	-----	28.3	-----	-----
-----	-----	-----	-----	0.010	-----	-----	-----
.503	1.443	0.0068	0.0098	-----	28.6	-----	-----

ETONE PPH C-600	MEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
.0007	0.0005	0.0030	0.0005

2

ITC-702
M-XYLENE - NOX
1983 DEC 7

0806: FIRST FILL.
0820: SECOND FILL.
0834: THIRD FILL. 50% R.H. AT 85 F.
0910: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
16.0 MICROLITERS M-XYLENE.
0930: 70% LIGHTS.
1405: DUMPED BAG. REFILLED TWICE.

T=0 AT 930 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.3	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.407	PPM
NO2-UNC	T 14B-1	0.112	PPM
M-XYL	10'C-600	0.5031	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-1211 POROPAK-N GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-702
M-XYLENE - NOX
1983 DEC 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCI PI CA
1 839	-51	-----	-----	-----	-----	-----	0.000	---
1 900	-30	0.002	0.012	0.027	0.031	-----	-----	---
1 914	-16	-----	-----	-----	-----	0.4900	-----	---
1 915	-15	0.001	0.406	0.112	0.515	-----	-----	0.
1 924	-6	-----	-----	-----	-----	-----	-----	---
1 930	0	0.002	0.407	0.112	0.516	0.5031	0.000	---
1 945	15	0.002	0.376	0.140	0.512	-----	-----	---
1 1000	30	0.001	0.264	0.238	0.500	-----	-----	---
1 1015	45	0.025	0.113	0.358	0.468	-----	-----	---
1 1030	60	0.103	0.043	0.390	0.431	0.3161	0.052	0.
1 1045	75	0.205	0.024	0.371	0.393	-----	-----	---
1 1100	90	0.301	0.017	0.339	0.354	-----	-----	---
1 1115	105	0.392	0.013	0.315	0.324	-----	-----	---
1 1130	120	0.466	0.011	0.290	0.297	0.1703	-----	0.
1 1145	135	0.522	0.010	0.276	0.279	-----	0.285A	---
1 1200	150	0.568	0.009	0.262	0.264	-----	-----	---
1 1215	165	0.598	0.008	0.252	0.252	-----	-----	---
1 1230	180	0.616	0.008	0.245	0.246	0.0980	0.390B	---
1 1245	195	0.627	0.008	0.240	0.240	-----	-----	---
1 1300	210	0.620	0.008	0.234	0.237	-----	-----	---
1 1315	225	0.620	0.009	0.235	0.236	-----	-----	---
1 1330	240	0.618	0.008	0.233	0.234	0.0633	0.370B	0
1 1345	255	0.612	0.008	0.234	0.235	-----	-----	---
1 1400	270	0.606	0.008	0.234	0.234	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PRO P DM
1 839	-51	0.0068	0.0078	0.0007	0.0004	0.0003	0.0006	0.

----- NO DATA TAKEN

NOTES

8 20 ML SAMPLE DILUTED IN 80 ML NITROGEN.
9 10 ML SAMPLE DILUTED IN 90 ML NITROGEN.

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X-UNC PPH 14B-1	M-XYL PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	T DEG C ANA-TEMP	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1
-----	-----	0.000	-----	-----	1.80	0.0049	0.0049
0.031	-----	-----	-----	27.5	-----	-----	-----
-----	0.4900	-----	-----	-----	-----	-----	-----
0.515	-----	-----	-----	26.9	-----	-----	-----
-----	-----	-----	0.012	-----	-----	-----	-----
0.516	0.5031	0.000	-----	27.1	-----	-----	-----
0.512	-----	-----	-----	27.6	-----	-----	-----
0.500	-----	-----	-----	27.8	-----	-----	-----
0.468	-----	-----	-----	28.0	-----	-----	-----
0.431	0.3161	0.052	0.022	28.3	-----	-----	-----
0.393	-----	-----	-----	28.5	-----	-----	-----
0.354	-----	-----	-----	28.4	-----	-----	-----
0.324	-----	-----	-----	28.4	-----	-----	-----
0.297	0.1703	-----	0.014	28.5	-----	-----	-----
0.279	-----	0.285A	-----	28.6	-----	-----	-----
0.264	-----	-----	-----	28.6	-----	-----	-----
0.252	-----	-----	-----	28.6	-----	-----	-----
0.246	0.0980	0.390B	-----	28.6	-----	-----	-----
0.240	-----	-----	-----	28.6	-----	-----	-----
0.237	-----	-----	-----	28.6	-----	-----	-----
0.236	-----	-----	-----	28.6	-----	-----	-----
0.234	0.0633	0.370B	0.053	28.7	-----	-----	-----
0.235	-----	-----	-----	28.8	-----	-----	-----
0.234	-----	-----	-----	28.8	-----	-----	-----

I-C4 PPH DMS-1	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0.0004	0.0003	0.0006	0.0030	0.0003

ITC-703
MESITYLENE - NOX
1983 DEC 8

0800: FIRST FILL.
0811: SECOND FILL.
0825: THIRD FILL. "50% R.H. AT 85 F.
0900: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
18.1 MICROLITERS MESITYLENE.
1000: 70% LIGHTS.
1402: DUMPED BAG. REFILLED TWICE.

T=0 AT 1000 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.7	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.387	PPM
NO2-UNC	T 14B-1	0.114	PPM
135-TMB	10'C-600	0.5846	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2200	DMS-1	CHAMP1 DIMETHYLSULFOLANE GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-703
METHYLENE - NOX
1983 DEC 8

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	135-TMB PPH 10'C-600	T DEB C ANA-TEMP	PA PP ECD
1 830	-90	-----	-----	-----	-----	-----	-----	0.
1 900	-60	0.001	0.400	0.043	0.430	-----	-----	---
1 914	-46	-----	-----	-----	-----	-----	-----	---
1 921	-39	-----	-----	-----	-----	0.5614	-----	---
1 1000	0	0.001	0.387	0.114	0.496	0.5846	27.1	0.
1 1015	15	0.001	0.293	0.203	0.488	-----	27.9	---
1 1030	30	0.095	0.049	0.400	0.445	-----	28.5	---
1 1045	45	0.294	0.016	0.392	0.402	-----	28.9	---
1 1100	60	0.451	0.011	0.369	0.374	0.1924	28.9	0.
1 1115	75	0.566	0.009	0.350	0.355	-----	29.1	---
1 1130	90	0.638	0.008	0.339	0.343	-----	29.4	---
1 1145	105	0.685	0.008	0.330	0.335	-----	29.6	---
1 1200	120	0.703	0.008	0.325	0.331	0.0674	28.5	0.
1 1215	135	0.704	0.008	0.322	0.328	-----	28.6	---
1 1230	150	0.707	0.008	0.321	0.327	-----	28.7	---
1 1245	165	0.697	0.007	0.320	0.326	-----	28.8	---
1 1300	180	0.693	0.007	0.319	0.324	0.0350	28.8	0.
1 1315	195	0.691	0.008	0.314	0.320	-----	28.9	---
1 1330	210	0.687	0.008	0.313	0.319	-----	29.0	---
1 1345	225	0.686	0.008	0.314	0.320	-----	29.0	---
1 1350	230	-----	-----	-----	-----	-----	-----	---
1 1400	240	0.683	0.008	0.313	0.319	0.0177	29.1	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROF PI DMS
1 830	-90	0.16	0.0036	0.0034	0.0002	0.0004	0.0047	0.1

----- NO DATA TAKEN

NOTES

- A 20 ML SAMPLE DILUTED WITH 80 ML NITROGEN.
- B PEAK WAS OFFSCALE.
- C 10 ML SAMPLE DILUTED WITH 80 ML NITROGEN.

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PAGE 2

X-UNC PPH 14B-1	135-TMB PPH 10'C-600	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600
-----	-----	-----	0.000	-----	-----	0.0008	0.0006
0.430	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.038	-----	-----	-----
-----	0.5614	-----	-----	-----	-----	-----	-----
0.496	0.5846	27.1	0.000	-----	-----	-----	-----
0.488	-----	27.9	-----	-----	-----	-----	-----
0.445	-----	28.5	-----	-----	-----	-----	-----
0.402	-----	28.9	-----	-----	-----	-----	-----
0.374	0.1924	28.9	0.243A	0.059	0.0064	-----B	0.0020
0.355	-----	29.1	-----	-----	-----	-----	-----
0.343	-----	29.4	-----	-----	-----	-----	-----
0.335	-----	29.6	-----	-----	-----	-----	-----
0.331	0.0674	28.5	0.580C	0.109	0.0112	0.0107	0.0053
0.328	-----	28.6	-----	-----	-----	-----	-----
0.327	-----	28.7	-----	-----	-----	-----	-----
0.326	-----	28.8	-----	-----	-----	-----	-----
0.324	0.0350	28.8	0.580C	0.091	0.0128	0.0116	0.0056
0.320	-----	28.9	-----	-----	-----	-----	-----
0.319	-----	29.0	-----	-----	-----	-----	-----
0.320	-----	29.0	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.156	-----	-----	-----
0.319	0.0177	29.1	0.586	-----	0.0140	-----B	0.0063

N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	I-C4=PPH DMS-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
0.0002	0.0004	0.0047	0.0007	0.0028	0.0087	0.0074

ITC-704
NOX - AIR IRRADIATION
1983 DECEMBER 9

0840: FIRST FILL.
0825: SECOND FILL.
0836: THIRD FILL. ~50% R.H. AT 85 F.
0907: INJECTIONS: 3.16 ML NO₁
0.64 ML NO₂
0.064 ML PROPENE.
1150: DUMPED BAG. REFILLED TWICE.

T=0 AT 930 PST

K1 = 0.300 MIN⁻¹

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.1	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.387	PPM
NO ₂ -UNC	T 14B-1	0.126	PPM
PROPENE	DMS-1	0.0109	PPM
N-C ₄	DMS-1	0.0099	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-400 GC; FID
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-704
NOX - AIR IRRADIATION
1983 DECEMBER 9

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-1
1 839	-51	-----	-----	-----	-----	-----	0.0007	0.0001
1 900	-30	0.001	0.007	0.021	0.028	-----	-----	-----
1 914	-14	-----	-----	-----	-----	-0.0240	0.0102	0.0091
1 915	-15	0.002	0.386	0.125	0.508	-----	-----	-----
1 930	0	0.002	0.387	0.126	0.510	-0.0238	0.0109	0.0091
1 945	15	0.001	0.389	0.126	0.512	0.0167	0.0104	0.0091
1 1000	30	0.001	0.388	0.124	0.509	0.0666	0.0096	0.0091
1 1015	45	0.001	0.385	0.126	0.508	0.1240	0.0091	0.0091
1 1030	60	0.002	0.382	0.126	0.505	0.1716	0.0105	0.0081
1 1045	75	0.001	0.379	0.126	0.502	0.2274	0.0081	0.0091
1 1100	90	0.001	0.374	0.128	0.498	0.2895	0.0074	0.0091
1 1115	105	0.002	0.370	0.127	0.493	0.3309	0.0073	0.0091
1 1120	110	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.001	0.365	0.129	0.492	0.3807	0.0070	0.0091
1 1145	135	0.001	0.360	0.132	0.488	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600
1 839	-51	0.0069	0.0041	0.0084	0.0079	0.0006	0.0004	0.0001

----- NO DATA TAKEN

27-JUL-84
PAGE 2

-UNC PH 4B-1	LNC4/C3-	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	T DEG C ANA-TEMP	PAN PPH ECB-1	METHANE PPH PN-1
-----	-----	0.0007	0.0001	-----	-----	0.000	1.86
.028	-----	-----	-----	-----	-----	-----	-----
-----	-0.0240	0.0102	0.0093	-----	-----	-----	-----
.508	-----	-----	-----	-----	-----	-----	-----
.510	-0.0238	0.0109	0.0099	0.010	27.0	-----	-----
.512	0.0167	0.0104	0.0099	-----	27.4	-----	-----
.509	0.0666	0.0096	0.0095	-----	27.7	-----	-----
.508	0.1240	0.0091	0.0096	-----	27.9	-----	-----
.505	0.1716	0.0105	0.0083	-----	28.1	-----	-----
.502	0.2274	0.0081	0.0095	-----	28.3	-----	-----
.498	0.2895	0.0074	0.0092	-----	28.4	-----	-----
.493	0.3309	0.0073	0.0095	-----	28.3	-----	-----
-----	-----	-----	-----	0.012	-----	-----	-----
.492	0.3807	0.0070	0.0095	-----	28.6	-----	-----
.488	-----	-----	-----	-----	28.8	-----	-----

YLEN PPH I-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0079	0.0006	0.0004	0.0006	0.0033	0.0002

2

ITC-706
MESITYLENE - NOX
1983 DECEMBER 12

0812: FIRST FILL.
0825: SECOND FILL.
0838: THIRD FILL. ~50% R.H. @ 85 F.
0910: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 9.0 MICROLITERS MESITYLENE.
1610: DUMPED. REFILLED TWICE.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.8	0.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.388	PPH
NO2-UNC	T 14B-1	0.105	PPH
135-TMB	10'C-600	0.2900	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-706
MESITYLENE - NOX
1983 DECEMBER 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	135-TMB PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA
1 841	-64	-----	-----	-----	-----	-----	0.000	-----
1 900	-45	0.002	0.021	0.000	0.021	-----	-----	-----
1 915	-30	0.002	0.453	0.039	0.489	-----	-----	-----
1 916	-29	-----	-----	-----	-----	0.2824	-----	-----
1 930	-15	0.002	0.387	0.103	0.487	-----	-----	0.04
1 945	0	0.002	0.388	0.105	0.490	0.2900	0.000	-----
1 1000	15	0.002	0.338	0.151	0.486	-----	-----	-----
1 1015	30	0.007	0.205	0.263	0.465	-----	-----	-----
1 1030	45	0.037	0.083	0.356	0.437	-----	-----	-----
1 1045	60	0.103	0.039	0.375	0.412	0.0947	-----	0.03
1 1100	75	0.172	0.025	0.370	0.392	-----	0.128A	-----
1 1115	90	0.225	0.019	0.358	0.375	-----	-----	-----
1 1130	105	0.278	0.015	0.348	0.360	-----	-----	-----
1 1145	120	0.328	0.013	0.337	0.347	0.0379	0.200B	0.05
1 1200	135	0.369	0.011	0.322	0.331	-----	-----	-----
1 1215	150	0.412	0.011	0.309	0.318	-----	-----	-----
1 1230	165	0.446	0.010	0.298	0.306	-----	-----	-----
1 1245	180	0.479	0.009	0.287	0.295	-----	-----	0.03
1 1300	195	0.504	0.009	0.278	0.285	-----	-----	-----
1 1302	197	-----	-----	-----	-----	0.0107	0.343C	-----
1 1315	210	0.527	0.008	0.269	0.275	-----	-----	-----
1 1330	225	0.551	0.008	0.261	0.268	-----	-----	-----
1 1345	240	0.569	0.009	0.253	0.260	0.0033	0.370C	0.03
1 1400	255	0.582	0.008	0.246	0.252	-----	-----	-----
1 1415	270	0.599	0.009	0.242	0.249	-----	-----	-----
1 1430	285	0.611	0.008	0.237	0.243	-----	-----	-----
1 1445	300	0.621	0.008	0.231	0.238	0.0013	0.440C	0.03
1 1500	315	0.630	0.008	0.229	0.235	-----	-----	-----
1 1515	330	0.632	0.008	0.224	0.231	-----	-----	-----
1 1530	345	0.640	0.008	0.220	0.227	-----	-----	-----
1 1545	360	0.640	0.008	0.217	0.225	-----	0.420C	0.03
1 1600	375	0.641	0.009	0.214	0.222	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-
1 841	-64	1.45	0.0045	0.0037	0.0062	0.0066	0.0007	0.00
----- NO DATA TAKEN								

27-JUL-84
PAGE 2

-UNC PPH 48-1	135-TMB PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600	T DEG C ANA-TEMP
-----	-----	0.000	-----	-----	-----	0.0005	-----
0.021	-----	-----	-----	-----	-----	-----	-----
0.489	-----	-----	-----	-----	-----	-----	-----
-----	0.2824	-----	-----	-----	-----	-----	-----
0.487	-----	-----	0.046	-----	-----	-----	-----
0.490	0.2900	0.000	-----	-----	-----	-----	26.2
0.486	-----	-----	-----	-----	-----	-----	26.4
0.465	-----	-----	-----	-----	-----	-----	26.5
0.437	-----	-----	-----	-----	-----	-----	26.8
0.412	0.0947	-----	0.038	-----	-----	-----	27.1
0.392	-----	0.128A	-----	-----	-----	-----	27.2
0.375	-----	-----	-----	-----	-----	-----	27.3
0.360	-----	-----	-----	-----	-----	-----	27.8
0.347	0.0379	0.200B	0.051	0.0057	0.0113	0.0016	28.3
0.331	-----	-----	-----	-----	-----	-----	28.4
0.318	-----	-----	-----	-----	-----	-----	28.6
0.306	-----	-----	-----	-----	-----	-----	27.9
0.295	-----	-----	0.038	-----	-----	-----	27.9
0.285	-----	-----	-----	-----	-----	-----	27.9
-----	0.0107	0.343C	-----	0.0071	0.0187	0.0033	-----
0.275	-----	-----	-----	-----	-----	-----	28.2
0.268	-----	-----	-----	-----	-----	-----	28.3
0.260	0.0033	0.370C	0.038	0.0065	-----	0.0033	28.2
0.252	-----	-----	-----	-----	-----	-----	28.2
0.249	-----	-----	-----	-----	-----	-----	28.2
0.243	-----	-----	-----	-----	-----	-----	28.3
0.238	0.0013	0.440C	0.065	0.0077	0.0180	0.0035	28.4
0.235	-----	-----	-----	-----	-----	-----	28.2
0.231	-----	-----	-----	-----	-----	-----	28.1
0.227	-----	-----	-----	-----	-----	-----	28.1
0.225	-----	0.420C	0.059	0.0077	0.0168	0.0043	28.0
0.222	-----	-----	-----	-----	-----	-----	28.0

TYLEN PPH M-1	ACETYLEN PPH BMS-1	PROPENE PPH BMS-1	N-C4 PPH BMS-1	PROPANE PPH BMS-1	I-C4 PPH BMS-1
0.0062	0.0066	0.0007	0.0004	0.0070	0.0006

ITC-706
MESITYLENE - NOX
1983 DECEMBER 12

NOTES

A	50 ML SAMPLE DILUTED IN 50 ML NITROGEN.
B	20 ML SAMPLE DILUTED IN 80 ML NITROGEN.
C	10 ML SAMPLE DILUTED IN 90 ML NITROGEN.

ITC-707
NOX-AIR IRRADIATION
1983 DECEMBER 13

0810: FIRST FILL.
0824: SECOND FILL.
0835: THIRD FILL. ~50% R.H. @ 85 F.
0905: INJECTIONS: 6.32 ML NO1
1.28 ML NO2
0.064 ML N-BUTANE
0.064 ML PROPENE.

1130: DUMPED BAG.

T=0 AT 930 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.7	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.801	PPM
NO2-UNC	T 14B-1	0.211	PPM
PROPENE	DMS-1	0.0113	PPM
N-C4	DMS-1	0.0105	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-707
NOX-AIR IRRADIATION
1983 DECEMBER 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-1
1 837	-53	-----	-----	-----	-----	-----	0.0008	0.000
1 900	-30	0.002	0.011	0.021	0.031	-----	-----	-----
1 912	-18	-----	-----	-----	-----	0.0227	0.0105	0.010
1 915	-15	0.002	0.801	0.211	1.000	-----	-----	-----
1 920	-10	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.002	-----R	-----R	-----R	-0.0131	0.0113	0.010
1 945	15	0.002	0.805	0.215	1.013	0.0283	0.0108	0.010
1 1000	30	0.002	0.805	0.214	1.012	0.0495	0.0106	0.010
1 1015	45	0.002	0.807	0.217	1.017	0.0808	0.0099	0.010
1 1030	60	0.002	0.803	0.220	1.017	0.1049	0.0096	0.010
1 1045	75	0.002	0.803	0.218	1.011	0.1367	0.0096	0.010
1 1100	90	0.002	0.800	0.218	1.011	0.1535	0.0093	0.010
1 1115	105	0.002	0.795	0.218	1.005	0.1867	0.0091	0.010
1 1120	110	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.002	0.788	0.219	1.001	0.2513	0.0084	0.010

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600
1 837	-53	0.0058	0.0066	0.0092	0.0096	0.0009	0.0005	0.000

----- NO DATA TAKEN

NOTES

R REJECTED DATA.
A BASELINE SHIFT.

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-UNC PM 4B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	T DEB C ANA-TEMP	PAN PPH ECD-1	METHANE PPH PN-1
-----	-----	0.0008	0.0005	-----	-----	0.000	1.70
.031	-----	-----	-----	-----	-----	-----	-----
-----	0.0227	0.0105	0.0101A	-----	-----	-----	-----
.000	-----	-----	-----	0.018	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----R	-0.0131	0.0113	0.0105	-----	27.0	-----	-----
.013	0.0283	0.0108	0.0103A	-----	27.3	-----	-----
.012	0.0495	0.0104	0.0104	-----	27.6	-----	-----
.017	0.0808	0.0099	0.0100	-----	27.9	-----	-----
.017	0.1049	0.0096	0.0100	-----	28.0	-----	-----
.014	0.1367	0.0096	0.0103	-----	28.0	-----	-----
.011	0.1535	0.0093	0.0101	-----	27.6	-----	-----
.005	0.1867	0.0091	0.0102	-----	27.6	-----	-----
-----	-----	-----	-----	0.024	-----	-----	-----
1.001	0.2513	0.0084	0.0101	-----	28.0	-----	-----
TYLEN PPH MS-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1		
.0094	0.0009	0.0005	0.0007	0.0037	0.0005		

ITC-709
MESITYLENE - NOX
1983 DECEMBER 14

0808: FIRST FILL.
0822: SECOND FILL.
0833: THIRD FILL. ~50% R.H. @ 85 F.
0900: INJECTIONS: 6.32 ML NO1
1.28 ML NO2
18.1 MICROLITERS 135-TMB.
1600: DUMPED AND REFILLED TWICE.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.3	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.785	PPH
NO2-UNC	T 14B-1	0.206	PPH
135-TMB	10'C-600	0.5207	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PN-1	RH-1211 POROPAK-N GC FID
2000	ECD-1	RH-1211 12' 5X CARBOWAX-400 GC ECD
2920	10'C-600	RH-1211 10' 10X CARBOWAX-600 GC FID
2200	DHS-1	CHAMP1 DIMETHYLSULFOLANE GC FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR SN1223790

ITC-709
METHYLENE - NOX
1983 DECEMBER 14

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	135-TMB PPH 10'C-600	PAN PPH ECD-1	HCH PP CA
1 837	-68	-----	-----	-----	-----	-----	0.000	---
1 845	-60	0.002	0.012	0.017	0.028	-----	-----	---
1 910	-35	-----	-----	-----	-----	0.5230	-----	---
1 920	-25	-----	-----	-----	-----	-----	-----	0.
1 930	-15	0.002	0.790	0.201	0.986	-----	-----	---
1 945	0	0.001	0.785	0.206	0.988	0.5207	0.000	---
1 1000	15	0.002	0.728	0.258	0.982	-----	-----	---
1 1015	30	0.003	0.547	0.413	0.957	-----	-----	---
1 1030	45	0.018	0.288	0.629	0.913	-----	-----	---
1 1045	60	0.059	0.119	0.748	0.864	0.2197	0.063	0.
1 1100	75	0.127	0.059	0.762	0.819	-----	-----	---
1 1115	90	0.199	0.038	0.749	0.784	-----	-----	---
1 1130	105	0.258	0.028	0.722	0.747	-----	-----	---
1 1145	120	0.322	0.023	0.692	0.711	0.0934	0.250A	0.
1 1200	135	0.370	0.019	0.660	0.677	-----	-----	---
1 1215	150	0.421	0.017	0.634	0.648	-----	-----	---
1 1230	165	0.462	0.015	0.605	0.618	-----	-----	---
1 1245	180	0.499	0.014	0.578	0.590	0.0404	0.410B	0.
1 1300	195	0.537	0.013	0.552	0.563	-----	-----	---
1 1315	210	0.565	0.013	0.530	0.540	-----	-----	---
1 1330	225	0.600	0.012	0.509	0.519	-----	-----	---
1 1345	240	0.628	0.012	0.491	0.501	-----	-----	---
1 1355	250	-----	-----	-----	-----	0.0133	0.530B	---
1 1400	255	0.651	0.011	0.479	0.488	-----	-----	---
1 1415	270	0.685	0.011	0.473	0.481	-----	-----	---
1 1430	285	0.705	0.011	0.467	0.475	-----	-----	---
1 1445	300	0.727	0.011	0.464	0.472	0.0049	0.520B	0.
1 1500	315	0.743	0.011	0.460	0.469	-----	-----	---
1 1515	330	0.758	0.011	0.459	0.468	-----	-----	---
1 1530	345	0.775	0.011	0.455	0.463	-----	-----	---
1 1545	360	0.779	0.011	0.448	0.457	0.0015	0.590B	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PM-1	ETHENE PPH PM-1	ETHANE PPH PM-1	ACETYLEN PPH BMS-1	ACETYLEN PPH PM-1	PROPENE PPH BMS-1	N- P BM
1 837	-68	1.41	0.0066	0.0052	0.0093	0.0085	0.0008	0.

----- NO DATA TAKEN

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PAGE 2

X-UNC PPH	135-TMB PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	T DEG C ANA-TEMP
-----	-----	0.000	-----	0.0011	0.0007	0.0001	-----
0.028	-----	-----	-----	-----	-----	-----	-----
-----	0.5230	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.008	-----	-----	-----	-----
0.986	-----	-----	-----	-----	-----	-----	-----
0.988	0.5207	0.000	-----	-----	-----	-----	27.2
0.982	-----	-----	-----	-----	-----	-----	27.7
0.957	-----	-----	-----	-----	-----	-----	28.1
0.913	-----	-----	-----	-----	-----	-----	28.4
0.864	0.2197	0.063	0.061	-----	-----	-----	28.7
0.819	-----	-----	-----	-----	-----	-----	28.1
0.784	-----	-----	-----	-----	-----	-----	28.1
0.747	-----	-----	-----	-----	-----	-----	28.2
0.711	0.0934	0.250A	0.024	0.0085	0.0128	0.0029	28.2
0.677	-----	-----	-----	-----	-----	-----	28.3
0.648	-----	-----	-----	-----	-----	-----	28.4
0.618	-----	-----	-----	-----	-----	-----	28.3
0.590	0.0404	0.410B	0.055	0.0110	0.0153	0.0048	28.2
0.563	-----	-----	-----	-----	-----	-----	28.2
0.540	-----	-----	-----	-----	-----	-----	28.2
0.519	-----	-----	-----	-----	-----	-----	28.3
0.501	-----	-----	-----	-----	-----	-----	28.3
-----	0.0133	0.530B	-----	0.0124	0.0188	0.0065	-----
0.488	-----	-----	-----	-----	-----	-----	28.4
0.481	-----	-----	-----	-----	-----	-----	28.5
0.475	-----	-----	-----	-----	-----	-----	28.6
0.472	0.0049	0.520B	0.109	0.0145	0.0216	0.0077	28.5
0.469	-----	-----	-----	-----	-----	-----	28.4
0.468	-----	-----	-----	-----	-----	-----	28.5
0.463	-----	-----	-----	-----	-----	-----	28.5
0.457	0.0015	0.590B	0.095	0.0138	0.0226	0.0094	28.5

ETHYLEN PPH DMS-1	ACETYLEN PPH PM-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0.0093	0.0085	0.0008	0.0005	0.0029	0.0007

ITC-709
MESITYLENE - NOX
1983 DECEMBER 14

NOTES

- A 20 ML SAMPLE DILUTED WITH 80 ML OF NITROGEN.
- B 10 ML SAMPLE DILUTED WITH 90 ML OF NITROGEN.

ITC-710
BENZENE - NOX
1983 DECEMBER 15

0808: FIRST FILL.
0820: SECOND FILL.
0832: THIRD FILL. 70 F WET, 80 F DRY.
0905: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
347 MICROLITERS BENZENE.
1550: DUMPED AND REFILLED TWICE.

T=0 AT 930 PST

K1 = 0.300 MIN-1

DAB NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.4	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.430	PPH
NO2-UNC	T 14B-1	0.123	PPH
BENZENE	10'C-600	13.9317	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID MCHO ANALYSIS
2200	BMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBONAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBONAX-600 GC; FID
1070	B-1070	BASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-710
BENZENE - NOX
1983 DECEMBER 15

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	BENZENE PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA
1 834	-54	-----	-----	-----	-----	-----	0.000	-----
1 839	-31	0.001	0.040	0.019	0.040	-----	-----	-----
1 915	-15	-----	-----	-----	-----	13.96A	-----	-----
1 924	-6	-----	-----	-----	-----	-----	-----	0.01
1 929	-1	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.002	0.430	0.123	0.550	13.93	0.000	-----
1 945	15	0.002	0.416	0.139	0.550	-----	-----	-----
1 1000	30	0.001	0.390	0.163	0.549	-----	-----	-----
1 1015	45	0.002	0.356	0.189	0.542	-----	-----	-----
1 1030	60	0.005	0.318	0.219	0.534	13.89	0.000	0.00
1 1045	75	0.008	0.273	0.255	0.525	-----	-----	-----
1 1100	90	0.016	0.228	0.284	0.511	-----	-----	-----
1 1115	105	0.030	0.184	0.314	0.496	-----	-----	-----
1 1130	120	0.036	0.147	0.336	0.481	13.38	0.000	0.01
1 1145	135	0.047	0.114	0.357	0.468	-----	-----	-----
1 1200	150	0.064	0.084	0.361	0.445	-----	-----	-----
1 1215	165	0.084	0.063	0.357	0.418	-----	-----	-----
1 1230	180	0.113	0.046	0.338	0.382	12.61	0.003	0.00
1 1245	195	0.139	0.034	0.307	0.339	-----	-----	-----
1 1300	210	0.184	0.024	0.263	0.286	-----	-----	-----
1 1315	225	0.238	0.018	0.211	0.227	-----	-----	-----
1 1330	240	0.300	0.013	0.155	0.167	11.91	0.007	0.01
1 1345	255	0.351	0.010	0.112	0.121	-----	-----	-----
1 1400	270	0.367	0.010	0.089	0.098	-----	-----	-----
1 1415	285	0.367	0.009	0.080	0.088	-----	-----	-----
1 1430	300	0.356	0.009	0.076	0.084	11.16	0.010	-----
1 1445	315	0.346	0.009	0.076	0.084	-----	-----	-----
1 1500	330	0.334	0.009	0.079	0.087	-----	-----	-----
1 1515	345	0.311	0.009	0.084	0.093	-----	-----	-----
1 1520	350	-----	-----	-----	-----	-----	-----	0.01
1 1530	360	0.320	0.009	0.090	0.098	10.59	0.090	-----
1 1545	375	0.301	0.009	0.095	0.103	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH PM-1	ACETYLEN PPH SNG-1	PROPENE PPH SNG-1	N-C4 PPH SNG-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROP PPH SNG-
1 834	-54	0.0118	0.0123	0.0008	0.0005	0.0012	0.0004	0.00

----- NO DATA TAKEN

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PAGE 2

JNC 1 B-1	BENZENE PPH 10'C-600	PAN PPH ECD-1	HCHO PPH CA	T DEG C ANA-TEMP	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1
---	-----	0.000	-----	-----	1.77	0.0099	0.0065
040	-----	-----	-----	-----	-----	-----	-----
---	13.96A	-----	-----	-----	-----	-----	-----
---	-----	-----	0.018	-----	-----	-----	-----
---	-----	-----	-----	26.7	-----	-----	-----
550	13.93	0.000	-----	-----	-----	-----	-----
550	-----	-----	-----	27.3	-----	-----	-----
549	-----	-----	-----	27.7	-----	-----	-----
542	-----	-----	-----	27.9	-----	-----	-----
534	13.89	0.000	0.002	27.6	-----	-----	-----
525	-----	-----	-----	27.3	-----	-----	-----
511	-----	-----	-----	27.5	-----	-----	-----
496	-----	-----	-----	27.6	-----	-----	-----
481	13.38	0.000	0.014	27.6	-----	-----	-----
468	-----	-----	-----	27.7	-----	-----	-----
445	-----	-----	-----	27.8	-----	-----	-----
418	-----	-----	-----	27.2	-----	-----	-----
382	12.61	0.003	0.008	27.4	-----	-----	-----
339	-----	-----	-----	27.4	-----	-----	-----
286	-----	-----	-----	27.4	-----	-----	-----
227	-----	-----	-----	27.4	-----	-----	-----
167	11.91	0.007	0.032	27.4	-----	-----	-----
121	-----	-----	-----	27.6	-----	-----	-----
098	-----	-----	-----	27.6	-----	-----	-----
088	-----	-----	-----	27.7	-----	-----	-----
084	11.16	0.010	-----	27.7	-----	-----	-----
084	-----	-----	-----	27.7	-----	-----	-----
087	-----	-----	-----	27.8	-----	-----	-----
093	-----	-----	-----	27.6	-----	-----	-----
---	-----	-----	0.024	-----	-----	-----	-----
098	10.59	0.090	-----	27.9	-----	-----	-----
103	-----	-----	-----	27.7	-----	-----	-----

JNC 1 B-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROPANE PPH BNS-1	I-C4 PPH BNS-1
1005	0.0012	0.0004	0.0036	0.0006

ITC-710
BENZENE - NOX
1983 DECEMBER 15

NOTES

A SAMPLES FOR BENZENE ARE LOOP SAMPLES.

ITC-711
FURAN - NOX
1983 DECEMBER 16

0640: BEGIN WET FLUSH.
0805: DUMP AND FILL. 50% R.H. @ 85 F.
0850: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 9.3 MICROLITERS FURAN.
0915: 70% LIGHTS ON.
1400: DUMP BAG. REFILL TWICE.

T=0 AT 915 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.8	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.373	PPH
NO2-UNC	T 14B-1	0.150	PPH
FURAN	C-20H	0.3990	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1400	C-20H	RH-1211 C-20H/DC-703 GC1 FID
2920	10'C-400	RH-1211 10' 10% CARBOWAX-400 GC1 FID
2200	BNS-1	CHAMP1 DINETHYLSULFOLANE GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
1070	B-1070	BASIDI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-711
FURAN - NOX
1983 DECEMBER 16

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	FURAN PPH C-20H	PAN PPH ECD-1	HCHO PPH CA
1 820	-55	-----	-----	-----	-----	-----	0.000	-----
1 900	-15	0.002	0.376	0.149	0.522	-----	-----	-----
1 901	-14	-----	-----	-----	-----	0.3998	-----	-----
1 910	-5	-----	-----	-----	-----	-----	-----	0.00
1 915	0	0.002	0.373	0.150	0.520	0.3990	0.000	-----
1 930	15	0.002	0.337	0.187	0.521	-----	-----	-----
1 945	30	0.002	0.210	0.290	0.497	-----	-----	-----
1 1000	45	0.078	0.049	0.390	0.437	-----	-----	-----
1 1015	60	0.249	0.019	0.323	0.340	0.0631	0.003	0.02
1 1030	75	0.368	0.014	0.258	0.270	-----	-----	-----
1 1045	90	0.423	0.013	0.224	0.235	-----	-----	-----
1 1100	105	0.453	0.012	0.206	0.216	-----	-----	-----
1 1115	120	0.466	0.012	0.196	0.206	0.0000	0.009	0.02
1 1130	135	0.469	0.012	0.191	0.201	-----	-----	-----
1 1145	150	0.470	0.012	0.187	0.197	-----	-----	-----
1 1200	165	0.471	0.011	0.188	0.198	-----	-----	-----
1 1215	180	0.469	0.011	0.184	0.194	-----	0.014	0.02
1 1230	195	0.469	0.012	0.185	0.195	-----	-----	-----
1 1245	210	0.468	0.011	0.188	0.198	-----	-----	-----
1 1300	225	0.467	0.011	0.189	0.199	-----	-----	-----
1 1315	240	0.468	0.011	0.192	0.202	-----	0.016	-----
1 1320	245	-----	-----	-----	-----	-----	-----	0.02
1 1330	255	0.466	0.011	0.195	0.205	-----	-----	-----
1 1345	270	0.460	0.012	0.197	0.207	-----	-----	-----
1 1400	285	0.460	0.011	0.200	0.209	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETO PPH 10'C-4
1 820	-55	0.0109	0.0055	0.0102	0.0108	0.0008	0.0004	0.00
1 915	0	-----	-----	-----	-----	-----	-----	-----

NO DATA TAKEN

NOTES

A FURAN INTERFERES WITH THIS PEAK.

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-UNC PPH 4B-1	FURAN PPH C-20H	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	MEK PPH 10'C-600	T DEG C ANA-TEMP	METHANE PPH PN-1
-----	-----	0.000	-----	-----	-----	-----	1.63
0.522	-----	-----	-----	-----	-----	-----	-----
-----	0.3998	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.008	-----	-----	-----	-----
0.520	0.3990	0.000	-----	-----	-----	27.2	-----
0.521	-----	-----	-----	-----	-----	27.8	-----
0.497	-----	-----	-----	-----	-----	28.0	-----
0.437	-----	-----	-----	-----	-----	28.4	-----
0.340	0.0631	0.003	0.020	0.0019	0.0002	27.3	-----
0.270	-----	-----	-----	-----	-----	27.5	-----
0.235	-----	-----	-----	-----	-----	27.6	-----
0.216	-----	-----	-----	-----	-----	27.7	-----
0.206	0.0000	0.009	0.024	0.0041	0.0006	27.8	-----
0.201	-----	-----	-----	-----	-----	27.8	-----
0.197	-----	-----	-----	-----	-----	27.8	-----
0.198	-----	-----	-----	-----	-----	27.8	-----
0.194	-----	0.014	0.016	0.0070	0.0013	27.8	-----
0.195	-----	-----	-----	-----	-----	27.8	-----
0.198	-----	-----	-----	-----	-----	27.8	-----
0.199	-----	-----	-----	-----	-----	27.8	-----
0.202	-----	0.016	-----	0.0073	0.0023	27.9	-----
-----	-----	-----	0.022	-----	-----	-----	-----
0.205	-----	-----	-----	-----	-----	27.8	-----
0.207	-----	-----	-----	-----	-----	27.9	-----
0.209	-----	-----	-----	-----	-----	27.9	-----

TYLEN PPH 4B-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETONE PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0.0108	0.0008	0.0004	0.0007	0.0036	0.0005
-----	-----	-----	-----A	-----	-----

ITC-712
NOX - AIR IRRADIATION
1983 DECEMBER 19

0845: FIRST FLUSH FILL.
0902: SECOND FILL.
0914: THIRD FILL.
0950: INJECTIONS: 3.16 ML NO1
 0.32 ML NO2;
 0.064 ML PROPENE;
 0.064 ML N-BUTANE.
1215: DUMP AND REFILL TWICE.

T=0 AT 1015 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.6	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.409	PPH
NO2-UNC	T 14B-1	0.096	PPH
PROPENE	DMS-1	0.0105	PPH
N-C4	DMS-1	0.0103	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID NCHO ANALYSIS
1070	D-1070	BASIDI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PM-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	CHAMP; DINETHYLSULFOLANE GC; FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-712
NOX - AIR IRRADIATION
1983 DECEMBER 19

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-1
1 918	-57	-----	-----	-----	-----	-----	0.0007	0.000
1 945	-30	0.002	0.007	0.044	0.052	0.0353	0.0105	0.010
1 954	-21	-----	-----	-----	-----	-----	-----	-----
1 1000	-15	0.002	0.407	0.095	0.499	-----	-----	-----
1 1008	-7	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.002	0.409	0.096	0.501	0.0499	0.0105	0.010
1 1030	15	0.002	0.408	0.100	0.504	0.0675	0.0106	0.010
1 1045	30	0.002	0.403	0.102	0.502	0.1110	0.0100	0.010
1 1100	45	0.002	0.399	0.104	0.500	0.1600	0.0094	0.010
1 1115	60	0.002	0.395	0.107	0.499	0.2100	0.0090	0.010
1 1130	75	0.002	0.391	0.107	0.495	0.2619	0.0086	0.010
1 1145	90	0.002	0.384	0.110	0.492	0.3177	0.0081	0.010
1 1200	105	0.002	0.377	0.113	0.487	0.3847	0.0074	0.010
1 1205	110	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.002	0.370	0.119	0.486	0.4453	0.0068	0.010

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1 918	-57	0.0083	0.0055	0.0130	0.0124	0.0033	0.0006

----- NO DATA TAKEN

2-AUG-84
PAGE 2

-UNC PM 4B-1	LNC4/C3= PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	T DEG C ANA-TEMP	PAN PPH ECD-1	METHANE PPH PN-1
-----	-----	0.0007	0.0004	-----	-----	0.000	1.69
0.052	-----	-----	-----	-----	-----	-----	-----
-----	0.0353	0.0105	0.0101	-----	-----	-----	-----
0.499	-----	-----	-----	0.000	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0.501	0.0499	0.0105	0.0103	-----	26.6	-----	-----
0.504	0.0675	0.0106	0.0106	-----	26.9	-----	-----
0.502	0.1110	0.0100	0.0104	-----	27.3	-----	-----
0.500	0.1600	0.0094	0.0104	-----	27.5	-----	-----
0.499	0.2100	0.0090	0.0104	-----	27.6	-----	-----
0.495	0.2619	0.0086	0.0104	-----	27.8	-----	-----
0.492	0.3177	0.0081	0.0103	-----	28.0	-----	-----
0.487	0.3847	0.0074	0.0102	-----	28.2	-----	-----
-----	-----	-----	-----	0.004	-----	-----	-----
0.486	0.4453	0.0068	0.0100	-----	28.4	-----	-----
TYLEN PPH N-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1					
0.0124	0.0033	0.0006					

ITC-713
FURAN - NOX
1983 DECEMBER 20

0645: ITC ON PURE AIR FLUSH.
0804: FIRST DUMP AND FILL.
0817: SECOND FILL.
0831: THIRD FILL. 75% R.H. @ 85 F.
0855: INJECTIONS: 4.32 ML NO1
1.28 ML NO2
9.3 MICROLITERS FURAN.
0930: 70% LIGHTS.
1530: RUN ENDED.

T=0 AT 930 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.5	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.775	PPH
NO2-UNC	T 14B-1	0.212	PPH
FURAN	C-20M	0.3834	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PM-1	RH-1211 POROPAK-N GC FID
2000	ECB-1	RH-1211 12' 5% CARBOWAX-400 GC ECD
2200	BHS-1	CHAMP1 DIMETHYLSULFOLANE GC FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-400 GC FID
1400	C-20M	RH-1211 C-20M/DC-703 GC FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-713
FURAN - NOX
1983 DECEMBER 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	FURAN PPH C-20H	PAN PPH ECD-1	MCH PPH CA
1 833	-57	-----	-----	-----	-----	-----	0.000	-----
1 845	-45	0.002	0.006	0.023	0.029	-----	-----	-----
1 912	-18	-----	-----	-----	-----	0.3834	-----	-----
1 915	-15	0.002	0.774	0.209	0.978	-----	-----	-----
1 920	-10	-----	-----	-----	-----	-----	-----	0.0
1 930	0	0.002	0.775	0.212	0.983	0.3834	0.000	-----
1 945	15	0.002	0.755	0.232	0.983	-----	-----	-----
1 1000	30	0.002	0.703	0.276	0.976	-----	-----	-----
1 1015	45	0.002	0.619	0.343	0.959	-----	-----	-----
1 1030	60	0.002A	0.490A	0.435A	-----	0.2064	0.000	0.0
1 1045	75	-----	0.370A	0.510A	-----	-----	-----	-----
1 1100	90	0.017A	0.275A	0.552A	-----	-----	-----	-----
1 1115	105	-----	-----	-----	-----	0.0801	0.002	-----
1 1130	120	0.030A	0.176A	0.567A	-----	-----	-----	0.0
1 1200	150	0.035A	0.140A	0.543A	-----	-----	-----	-----
1 1230	180	0.039A	0.125A	0.518A	-----	-----	-----	-----
1 1300	210	0.040A	0.116A	0.492A	-----	-----	-----	-----
1 1315	225	-----	-----	-----	-----	0.0240	0.002	-----
1 1330	240	0.036	0.112	0.468	0.577	-----	-----	0.0
1 1345	255	0.041	0.110	0.458	0.566	-----	-----	-----
1 1400	270	0.038	0.108	0.454	0.559	0.0178	0.003	-----
1 1415	285	0.045	0.104	0.449	0.552	-----	-----	-----
1 1430	300	0.041	0.105	0.448	0.550	0.0150	0.003	0.0
1 1445	315	0.040	0.103	0.447	0.548	-----	-----	-----
1 1500	330	0.040	0.102	0.446	0.545	-----	-----	-----
1 1515	345	0.038	0.101	0.443	0.541	-----	-----	-----
1 1530	360	0.037	0.100	0.440	0.537	0.0103	0.003	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DHS-1	ACETYLEN PPH PN-1	PROPENE PPH DHS-1	N-C4 PPH DHS-1	ACET PP 10'C-
1 833	-57	0.0101	0.0078	0.0092	0.0091	0.0008	0.0003	0.0

----- NO DATA TAKEN

NOTES

A TAKEN FROM STRIP CHART. DATA COLLECTION SYSTEM DOWN.

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PAGE 2

-UNC PH AB-1	FURAN PPH C-20H	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	HEK PPH 10'C-600	T DEB C ANA-TEMP	METHANE PPH PN-1
-----	-----	0.000	-----	-----	-----	-----	1.47
.029	-----	-----	-----	-----	-----	-----	-----
-----	0.3834	-----	-----	-----	-----	-----	-----
.978	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.002	-----	-----	-----	-----
0.983	0.3834	0.000	-----	-----	-----	26.9	-----
0.983	-----	-----	-----	-----	-----	26.8	-----
0.976	-----	-----	-----	-----	-----	27.0	-----
0.959	-----	-----	-----	-----	-----	27.3	-----
-----	0.2064	0.000	0.022	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	0.0801	0.002	-----	-----	-----	-----	-----
-----	-----	-----	0.044	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	0.0240	0.002	-----	0.0041	0.0001	-----	-----
0.577	-----	-----	0.028	-----	-----	27.7	-----
0.566	-----	-----	-----	-----	-----	27.6	-----
0.559	0.0178	0.003	-----	0.0054	0.0007	27.8	-----
0.552	-----	-----	-----	-----	-----	27.8	-----
0.550	0.0150	0.003	0.026	0.0057	0.0007	27.8	-----
0.548	-----	-----	-----	-----	-----	27.9	-----
0.545	-----	-----	-----	-----	-----	27.9	-----
0.541	-----	-----	-----	-----	-----	27.8	-----
0.537	0.0103	0.003	0.053	0.0034	0.0006	27.8	-----
TYLEN PPH N-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETONE PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1		
0.0091	0.0008	0.0003	0.0041	0.0038	0.0005		

SYSTEM DOWN.

ITC-714
NOX - AIR IRRADIATION
1983 DECEMBER 21

0645: PURE AIR FLUSH ON BAG.
0819: FIRST FILL AFTER DUMP.
0833: SECOND FILL.
0849: THIRD FILL. ~50% R.H. @ 85 F.
0915: INJECTIONS: 6.32 ML NO1
 1.28 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE.
0945: 70% LIGHTS.
1150: DUMP BAG. REFILL TWICE.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.1	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.805	PPH
NO2-UNC	T 14B-1	0.200	PPH
PROPENE	BMS-1	0.0102	PPH
N-C4	BMS-1	0.0105	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	B-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECB-1	RH-1211 12' SX CARBOWAX-400 GC1 ECD
2200	BMS-1	CHAMP1 DIMETHYLBULFOLANE GC1 FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-714
NOX - AIR IRRADIATION
1983 DECEMBER 21

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-
1 848	-57	-----	-----	-----	-----	-----	0.0007	0.00
1 915	-30	0.002	0.009	0.020	0.029	-----	-----	-----
1 930	-15	0.002	0.804	0.197	0.999	-----	-----	-----
1 937	-8	-----	-----	-----	-----	0.0895	0.0102	0.01
1 940	-5	-----	-----	-----	-----	-----	-----	-----
1 945	0	0.002	0.805	0.200	0.999	0.0939	0.0102	0.01
1 1000	15	0.002	0.804	0.200	1.001	0.1253	0.0101	0.01
1 1015	30	0.002	0.804	0.198	0.998	0.1411	0.0091	0.01
1 1030	45	0.002	0.805	0.198	0.997	0.1933	0.0083	0.00
1 1045	60	0.002	0.798	0.196	0.988	0.2384	0.0079	0.00
1 1100	75	0.002	0.792	0.195	0.982	0.2490	0.0078	0.00
1 1115	90	0.002	0.789	0.195	0.978	0.2933	0.0077	0.00
1 1130	105	0.002	0.782	0.191	0.967	0.3254	0.0073	0.00
1 1135	110	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.001	0.771	0.193	0.958	0.3513	0.0073	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1 848	-57	0.0058	0.0069	0.0050	0.0048	0.0036	0.0004

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC M B-1	LNC4/C3- PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	T DEB C ANA-TEMP	PAN PPH ECD-1	METHANE PPH PN-1
---	-----	0.0007	0.0002	-----	-----	0.000	1.28
029	-----	-----	-----	-----	-----	-----	-----
999	-----	-----	-----	-----	-----	-----	-----
---	0.0895	0.0102	0.0104	-----	-----	-----	-----
---	-----	-----	-----	0.000	-----	-----	-----
.999	0.0939	0.0102	0.0105	-----	27.0	-----	-----
.001	0.1253	0.0101	0.0107	-----	27.1	-----	-----
.998	0.1611	0.0091	0.0100	-----	27.3	-----	-----
.997	0.1933	0.0083	0.0094	-----	27.5	-----	-----
.988	0.2386	0.0079	0.0094	-----	27.7	-----	-----
.982	0.2690	0.0078	0.0096	-----	27.9	-----	-----
.978	0.2933	0.0077	0.0096	-----	28.3	-----	-----
.967	0.3256	0.0073	0.0094	-----	28.5	-----	-----
---	-----	-----	-----	0.002	-----	-----	-----
.958	0.3513	0.0073	0.0097	-----	28.6	-----	-----
YLEN PH -1	PROPANE PPH DMS-1	I-C4 PPH DMS-1					
0048	0.0036	0.0006					

ITC-715
FURAN - NOX
1983 DECEMBER 22

0645: PURE AIR FLUSH OF BAG.
0806: FIRST DUMP AND FILL.
0819: SECOND FILL.
0831: THIRD FILL. 70 F WET; 80 F DRY.
0905: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2;
 4.7 MICROLITERS FURAN.
1600: DUMP AND REFILL.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.6	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.393	PPH
NO2-UNC	T 14B-1	0.103	PPH
FURAN	C-20H	0.2122	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
1400	C-20H	RH-121; C-20H/BC-703 GC; FID
2200	DHS-1	CHAMP; DINETHYLSULFOLANE GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECB-1	RH-121; 12' 5% CARBOWAX-400 GC; ECB
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-715
FURAN - NOX
1983 DECEMBER 22

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	FURAN PPH C-20H	PAN PPH ECD-1	HCHO PPH CA
1 833	-72	-----	-----	-----	-----	-----	0.000	-----
1 900	-45	0.002	0.004	0.007	0.011	-----	-----	-----
1 927	-18	-----	-----	-----	-----	0.2126	-----	-----
1 930	-15	0.002	0.393	0.105	0.495	-----	-----	-----
1 935	-10	-----	-----	-----	-----	-----	-----	0.0
1 945	0	0.002	0.393	0.103	0.494	0.2122	0.000	-----
1 1000	15	0.002	0.384	0.115	0.494	0.1995	-----	-----
1 1015	30	0.002	0.354	0.141	0.492	0.1757	-----	-----
1 1030	45	0.002	0.298	0.183	0.479	0.1432	-----	-----
1 1045	60	0.003	0.230	0.232	0.459	0.1092	0.000	0.0
1 1100	75	0.002	0.168	0.269	0.434	0.0784	-----	-----
1 1115	90	0.015	0.126	0.285	0.409	0.0560	-----	-----
1 1130	105	0.020	0.100	0.285	0.383	0.0428	-----	-----
1 1145	120	0.029	0.084	0.282	0.343	0.0339	0.002	0.0
1 1200	135	0.039	0.074	0.276	0.349	0.0290	-----	-----
1 1215	150	0.040	0.068	0.270	0.336	0.0240	-----	-----
1 1230	165	0.037	0.044	0.263	0.324	0.0217	-----	-----
1 1245	180	0.051	0.040	0.258	0.316	0.0187	0.003	0.0
1 1300	195	0.047	0.057	0.253	0.309	0.0160	-----	-----
1 1315	210	0.047	0.055	0.248	0.301	0.0145	-----	-----
1 1330	225	0.046	0.052	0.246	0.296	0.0133	-----	-----
1 1345	240	0.055	0.051	0.240	0.289	0.0117	0.003	0.0
1 1400	255	0.052	0.049	0.236	0.284	0.0099	-----	-----
1 1415	270	0.053	0.047	0.232	0.278	0.0092	-----	-----
1 1430	285	0.055	0.047	0.226	0.271	0.0077	-----	-----
1 1445	300	0.054	0.045	0.223	0.266	0.0075	0.003	0.0
1 1500	315	0.051	0.044	0.218	0.260	0.0068	-----	-----
1 1515	330	0.057	0.043	0.213	0.254	0.0058	-----	-----
1 1530	345	0.058	0.042	0.209	0.249	0.0051	-----	0.0
1 1545	360	0.059	0.041	0.207	0.246	0.0048	0.003	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROP PPH DMS-
1 833	-72	0.0029	0.0030	0.0010	0.0002	0.0004	0.0004	0.0

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC M B-1	FURAN PPH C-20M	PAN PPH ECD-1	HCHO PPH CA	T DEB C ANA-TENP	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1
---	-----	0.000	-----	-----	1.22	0.0025	0.0039
011	-----	-----	-----	-----	-----	-----	-----
---	0.2126	-----	-----	-----	-----	-----	-----
495	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	0.016	-----	-----	-----	-----
494	0.2122	0.000	-----	26.8	-----	-----	-----
496	0.1995	-----	-----	26.9	-----	-----	-----
492	0.1757	-----	-----	27.2	-----	-----	-----
479	0.1432	-----	-----	26.3	-----	-----	-----
459	0.1092	0.000	0.018	26.4	-----	-----	-----
434	0.0784	-----	-----	26.6	-----	-----	-----
409	0.0560	-----	-----	26.8	-----	-----	-----
383	0.0428	-----	-----	26.5	-----	-----	-----
363	0.0339	0.002	0.034	26.6	-----	-----	-----
349	0.0290	-----	-----	26.8	-----	-----	-----
336	0.0240	-----	-----	26.5	-----	-----	-----
324	0.0217	-----	-----	26.6	-----	-----	-----
316	0.0187	0.003	0.036	26.7	-----	-----	-----
309	0.0160	-----	-----	26.5	-----	-----	-----
301	0.0145	-----	-----	26.6	-----	-----	-----
296	0.0133	-----	-----	26.6	-----	-----	-----
289	0.0117	0.003	0.042	26.5	-----	-----	-----
284	0.0099	-----	-----	26.7	-----	-----	-----
278	0.0092	-----	-----	26.5	-----	-----	-----
271	0.0077	-----	-----	26.5	-----	-----	-----
266	0.0075	0.003	0.051	26.8	-----	-----	-----
260	0.0068	-----	-----	26.5	-----	-----	-----
254	0.0058	-----	-----	26.6	-----	-----	-----
249	0.0051	-----	0.036	26.6	-----	-----	-----
246	0.0048	0.003	-----	26.1	-----	-----	-----

4 M B-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROPANE PPH DHS-1	I-C4 PPH DHS-1
0002	0.0004	0.0004	0.0032	0.0002

ITC-716
PROPENE-NOX
1983 DECEMBER 23

0645: PURE AIR FLUSH.
0740: FIRST DUMP AND FILL.
0803: SECOND FILL.
0816: THIRD FILL. 68 F WET BULB; 80 F DRY BULB.
0845: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2;
 6.4 ML PROPENE.
0915: 70X LIGHTS.
1516: DUMP AND REFILL TWICE.

T=0 AT 915 PST

K1 = 0.300 MIN-1

DAB NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.7	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.376	PPH
NO2-UNC	T 14B-1	0.114	PPH
PROPENE	DMS-1	1.0391	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	D-1070	DASID 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	CHAMP; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-716
PROPENE-NOX
1983 DECEMBER 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	PROPENE PPH DMS-1	PAN PPH ECD-1	HCI PI CI
1 825	-50	-----	-----	-----	-----	0.0008	0.000	---
1 830	-45	0.002	0.008	0.021	0.029	-----	-----	---
1 855	-20	-----	-----	-----	-----	1.032	-----	0.
1 900	-15	0.002	0.376	0.113	0.487	-----	-----	---
1 915	0	0.002	0.376	0.114	0.487	1.039	0.000	---
1 930	15	0.002	0.318	0.173	0.488	0.9943	-----	---
1 945	30	0.002	0.255	0.230	0.482	0.9470	-----	---
1 1000	45	0.002	0.195	0.285	0.477	0.8860	-----	---
1 1015	60	0.009	0.135	0.336	0.469	0.8378	0.005	0.
1 1030	75	0.030	0.086	0.372	0.455	-----	-----	---
1 1045	90	0.077	0.050	0.394	0.442	0.7053	0.019	---
1 1100	105	0.151	0.030	0.397	0.425	-----	-----	---
1 1115	120	0.233	0.020	0.389	0.407	0.5161	0.060	0.
1 1130	135	0.313	0.015	0.374	0.387	-----	-----	---
1 1145	150	0.392	0.013	0.358	0.369	0.3363	0.120	---
1 1200	165	0.436	0.011	0.340	0.350	-----	-----	---
1 1215	180	0.505	0.010	0.329	0.338	0.2103	0.195	0.
1 1230	195	0.549	0.009	0.319	0.326	-----	-----	---
1 1245	210	0.589	0.009	0.308	0.315	-----	-----	---
1 1300	225	0.621	0.008	0.298	0.304	-----	-----	---
1 1315	240	0.638	0.007	0.291	0.296	0.0692	0.285	0.
1 1330	255	0.655	0.007	0.283	0.289	-----	-----	---
1 1345	270	0.674	0.007	0.278	0.283	0.0404	0.390	---
1 1400	285	0.687	0.007	0.272	0.278	-----	-----	---
1 1415	300	0.690	0.007	0.267	0.272	0.0226	0.402	0.
1 1430	315	0.698	0.007	0.264	0.269	-----	-----	---
1 1445	330	0.702	0.007	0.259	0.265	0.0129	0.452	---
1 1500	345	0.705	0.007	0.258	0.263	-----	-----	---
1 1515	360	0.713	0.006	0.260	0.265	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	N-C4 PPH DMS-1	PRO P DM
1 825	-50	1.72	0.0028	0.0036	0.0023	0.0025	0.0002	0.

----- NO DATA TAKEN

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PAGE 2

K-UNC PPH 4B-1	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	T DEG C ANA-TEMP
-----	0.0008	0.000	-----	0.0000	0.0000	0.0000	-----
0.029	-----	-----	-----	-----	-----	-----	-----
-----	1.032	-----	0.008	-----	-----	-----	-----
0.487	-----	-----	-----	-----	-----	-----	-----
0.487	1.039	0.000	-----	0.0000	0.0000	0.0000	27.2
0.488	0.9943	-----	-----	-----	-----	-----	27.3
0.482	0.9470	-----	-----	-----	-----	-----	27.5
0.477	0.8860	-----	-----	-----	-----	-----	27.7
0.469	0.8378	0.005	0.042	0.0828	0.0000	0.0000	27.9
0.455	-----	-----	-----	-----	-----	-----	28.0
0.442	0.7053	0.019	-----	-----	-----	-----	28.1
0.425	-----	-----	-----	-----	-----	-----	28.2
0.407	0.5161	0.060	0.137	0.1968	0.0017	0.0000	27.7
0.387	-----	-----	-----	-----	-----	-----	26.9
0.369	0.3363	0.120	-----	-----	-----	-----	28.0
0.350	-----	-----	-----	-----	-----	-----	26.4
0.338	0.2103	0.195	0.259	0.2157	0.0035	0.0000	27.8
0.326	-----	-----	-----	-----	-----	-----	28.2
0.315	-----	-----	-----	-----	-----	-----	28.3
0.304	-----	-----	-----	-----	-----	-----	27.6
0.296	0.0692	0.285	0.247	0.2322	0.0078	0.0019	27.4
0.289	-----	-----	-----	-----	-----	-----	27.6
0.283	0.0404	0.390	-----	-----	-----	-----	28.3
0.278	-----	-----	-----	-----	-----	-----	28.0
0.272	0.0226	0.402	0.287	0.1917	0.0047	0.0028	27.6
0.269	-----	-----	-----	-----	-----	-----	27.6
0.265	0.0129	0.452	-----	0.1872	0.0061	0.0041	27.4
0.263	-----	-----	-----	-----	-----	-----	27.4
0.265	-----	-----	-----	-----	-----	-----	28.0

ETHYLEN PPH DMS-1	ACETYLEN PPH PN-1	N-C4 PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0.0023	0.0025	0.0002	0.0029	0.0003

ITC-717
NOX-AIR IRRADIATION
1984 JANUARY 4

0645: WET AIR FLUSH BEGUN.
0812: FIRST FILL.
0828: SECOND FILL.
0841: THIRD FILL. ~50% R.H. @ 85 F.
0915: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE.

0945: 70% LIGHTS
1145: DUMPED BAG.
1500: START FLUSH.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	28.0	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.398	PPM
NO2-UNC	T 14B-1	0.122	PPM
PROPENE	DMS-1	0.0113	PPM
N-C4	DMS-1	0.0106	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1070	D-1070	DASIBI 1070 OZONE MONITOR
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
2200	DMS-1	CHAMP1 DIMETHYLSULFOLANE GC1 FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-717
NOX-AIR IRRADIATION
1984 JANUARY 4

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1070	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-
1 846	-59	-----	-----	-----	-----	-----	0.0010	0.00
1 915	-30	0.006	0.003	0.000	0.002	-----	-----	-----
1 922	-23	-----	-----	-----	-----	0.0231	0.0109	0.01
1 930	-15	0.006	0.395	0.122	0.514	-----	-----	-----
1 945	0	0.005	0.398	0.122	0.517	0.0048	0.0113	0.01
1 955	10	-----	-----	-----	-----	-----	-----	-----
1 1000	15	0.012	0.403	0.125	0.525	0.0410	0.0109	0.01
1 1015	30	0.011	0.402	0.127	0.527	0.0700	0.0102	0.01
1 1030	45	0.006	0.402	0.130	0.530	0.1238	0.0096	0.01
1 1045	60	0.006	0.401	0.129	0.528	0.1862	0.0091	0.01
1 1100	75	0.005	0.397	0.131	0.525	0.2191	0.0086	0.01
1 1115	90	0.012	0.393	0.129	0.520	0.2662	0.0084	0.01
1 1130	105	0.011	0.388	0.131	0.517	0.3036	0.0078	0.00
1 1135	110	-----	-----	-----	-----	-----	-----	-----
1 1145	120	0.013	0.383	0.133	0.514	0.3556	0.0074	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROPA PPH DMS-
1 846	-59	0.0042	0.0032	0.0062	0.0053	0.0006	0.0003	0.00

----- NO DATA TAKEN

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PAGE 2

-UNC PM 4B-1	LNC4/C3=	PROPENE PPM DMS-1	N-C4 PPM DMS-1	HCHO PPM CA	T DEG C ANA-TEMP	PAN PPM ECD-1	METHANE PPM PN-1
0.002	0.0231	0.0010	0.0003	0.073	27.3	0.000	1.53
0.514		0.0109	0.0104				
0.517	0.0048	0.0113	0.0106		27.9		
0.525	0.0410	0.0109	0.0106		28.1		
0.527	0.0700	0.0102	0.0102		28.5		
0.530	0.1238	0.0096	0.0101		28.2		
0.528	0.1862	0.0091	0.0103		28.0		
0.525	0.2191	0.0086	0.0100		28.2		
0.520	0.2442	0.0084	0.0102		28.0		
0.517	0.3036	0.0078	0.0098	0.006			
0.514	0.3556	0.0074	0.0098		28.0		

TYLEN PPM N-1	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	PROPANE PPM DMS-1	I-C4 PPM DMS-1
0.0053	0.0006	0.0003	0.0037	0.0005

ITC-720
JP-4 (SHALE) INJECTION TEST
1984 JANUARY 9

0812: DUMP BAG.
0829: FILL -- WET AIR FLUSH.
0900: FLUSH STOPPED. WET BULB 66 F; DRY BULB 80 F.
0913: INJECTED 240 MICROLITERS JP-4 SHALE (USED HEAT GUN).
1136: INJECTIONS: 2.3 MICROLITERS BENZENE;
2.8 MICROLITERS TOLUENE;
3.2 MICROLITERS P-XYLENE;
3.6 MICROLITERS MESITYLENE.

DAY 2 (JANUARY 10)

1300: DUMP BAG. REFILL. DUMP TO WET FLUSH.
1550: FLUSH OFF.

T=0 AT 0 PST

BAG NO. 101 USED

INSTRUMENTS USED

ID LABEL DESCRIPTION
2850 DB-5C-1 RM-121; 30 M DB-5 QUARTZ CAP, GC; FID

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C6 PPH DB-5C-1	N-C7 PPH DB-5C-1	MECYC-C6 PPH DB-5C-1	N-C8 PPH DB-5C-1	N-C9 PPH DB-5C-1	N-C10 PPH DB-5C-1	N-C PP DB-5
1 948	0	0.1189	0.0442	0.1046	0.0348	0.0712	0.0981	0.1
1 1050	62	0.1453	0.0456	0.1067	0.0353	0.0647	0.1002	0.1
1 1150	122	0.1179A	0.0431A	0.1014A	0.0334A	0.0697A	0.1003A	0.1
1 1254	186	0.1178	0.0441	0.1063	0.0344	0.0634	0.1023	0.1
1 1356	248	0.1177	0.0438	0.1050	0.0341	0.0713	0.1023	0.1
1 1459	311	0.1185	0.0450	0.1049	0.0345	0.0717	0.1033	0.1
2 1126	1538	0.0836	0.0310	0.0730	0.0241	0.0457	0.0706	0.1
2 1235	1607	0.0829B	0.0304B	0.0718B	0.0235B	0.0480B	0.0690B	0.1

----- NO DATA TAKEN

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PAGE 1

HEAT GUN).

FID

-C8 PPH -5C-1	N-C9 PPH DB-5C-1	N-C10 PPH DB-5C-1	N-C11 PPH DB-5C-1	N-C12 PPH DB-5C-1	N-C13 PPH DB-5C-1	N-C14 PPH DB-5C-1	TOLUENE PPH DB-5C-1
0.0348	0.0712	0.0981	0.1836	0.3006	0.4315	0.2842R	0.0854
0.0353	0.0647	0.1002	0.1883	0.3172	0.4719	0.3350	0.0864
0.0334A	0.0697A	0.1003A	0.1833A	0.3059A	0.4752A	0.4041A	0.1781A
0.0344	0.0634	0.1023	0.1888	0.3137	0.4875	0.4293	0.1827
0.0341	0.0713	0.1023	0.1890	0.3167	0.4964	0.4422	0.1812
0.0345	0.0717	0.1033	0.1896	0.3135	0.4715	0.4381	0.1835
0.0241	0.0457	0.0706	0.1264	0.2067	0.2962	0.2325	0.1290
0.0235B	0.0480B	0.0690B	0.1240B	0.2028B	0.3268B	0.2174B	0.1268B

ITC-720
JP-4 (SHALE) INJECTION TEST
1984 JANUARY 9

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	P-XYL PPH DB-5C-1	135-TMB PPH DB-5C-1
1 948	0	0.0650	0.0387
1 1050	62	0.0658	0.0391
1 1150	122	0.1684A	0.0234A
1 1254	186	0.1711	0.0226
1 1356	248	0.1697	0.2251
1 1459	311	0.1731	0.2276
2 1126	1538	0.1198	0.1567
2 1235	1607	0.1176B	0.1527B

----- NO DATA TAKEN

NOTES

R DB-5C-1 CANNOT RELIABLY MONITOR COMPOUNDS HEAVIER THAN N-C13,
SO THE N-C14 DATA ARE PROBABLY NOT MEANINGFUL. N-C14 DATA
FROM THIS INSTRUMENT ARE NOT REPORTED IN SUBSEQUENT RUNS.

A AFTER ADDITION OF BENZENE, TOLUENE, P-XYLENE, AND MESITYLENE.

B AFTER ADDITION OF 30 MICROLITERS PENTANE FLUSHED INTO ITC WITH NITROGEN.

C 11.78 IS THE CALIBRATED RETENTION TIME.

ITC-721
JP-4 (SHALE) - NOX
1984 JANUARY 11

0815: FIRST FILL.
0828: SECOND FILL.
0841: THIRD FILL. ~50% R.H.
0910: INJECTION: 100 PPM C, 480 MICROLITERS J.P.-4 SHALE, USED
HEAT GUN.
0930: INJECTION: 3.16 ML NO.
0.64 ML NO.
1703: DUMP AND REFILL.

T=0 AT 1100 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.410	PPH
NO2-UNC	C-1600B	0.133	PPH
N-C6	DB-5C-1	0.1374	PPH
N-C7	DB-5C-1	0.1020	PPH
MECYC-C6	DB-5C-1	0.2307	PPH
N-C8	DB-5C-1	0.0765	PPH
N-C9	DB-5C-1	0.1579	PPH
N-C10	DB-5C-1	0.2222	PPH
N-C11	DB-5C-1	0.4195	PPH
N-C12	DB-5C-1	0.7196	PPH
N-C13	DB-5C-1	1.2314	PPH
TOLUENE	DB-5C-1	0.1872	PPH
P-XYL	DB-5C-1	0.1453	PPH
135-TNB	DB-5C-1	0.0862	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2920	10'C-600	RH-1211 10' 10X CARBONAX-600 GC1 FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5X CARBONAX-400 GC1 ECD
2850	DB-5C-1	RH-1211 30 M DB-5 QUARTZ CAP, GC1 FID
1212	B-1212	BASIDI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR, SN1223790

ITC-721
JP-4 (SHALE) - NOX
1984 JANUARY 11

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	N-C6 PPH DB-5C-1	N-C7 PPH DB-5C
1 850	-130	-----	-----	-----	-----	-----	-----	-----
1 956	-64	-----	-----	-----	-----	-----	0.1431	0.10
1 1045	-15	0.000	0.416	0.134	0.548	-----	-----	-----
1 1100	0	0.000	0.410	0.133	0.543	27.1	0.1374	0.10
1 1115	15	0.000	-----R	-----R	-----R	27.7	-----	-----
1 1130	30	0.000	0.324	0.212	0.535	28.1	-----	-----
1 1145	45	0.000	0.277	0.252	0.529	28.4	-----	-----
1 1200	60	0.000	0.235	0.290	0.525	28.2	0.1369	0.09
1 1215	75	0.000	0.192	0.325	0.515	27.5	-----	-----
1 1230	90	0.000	0.147	0.358	0.504	27.5	-----	-----
1 1245	105	0.000	0.112	0.386	0.495	27.7	-----	-----
1 1300	120	0.000	0.081	0.403	0.483	27.8	-----	-----
1 1315	135	0.075	0.059	0.412	0.468	27.9	0.1300	0.09
1 1330	150	0.108	0.043	0.414	0.456	27.9	-----	-----
1 1345	165	0.145	0.032	0.412	0.443	28.0	-----	-----
1 1400	180	0.187	0.027	0.402	0.427	27.8	-----	-----
1 1410	190	-----	-----	-----	-----	-----	0.1189	0.08
1 1415	195	0.232	0.019	0.395	0.413	27.9	-----	-----
1 1430	210	0.282	0.017	0.381	0.396	27.8	-----	-----
1 1445	225	0.333	0.015	0.364	0.379	27.9	-----	-----
1 1500	240	0.388	0.012	0.347	0.357	27.9	-----	-----
1 1508	248	-----	-----	-----	-----	-----	0.09918	0.07
1 1515	255	0.446	0.011	0.325	0.335	28.0	-----	-----
1 1530	270	0.501	0.009	0.305	0.313	28.0	-----	-----
1 1545	285	0.554	0.008	0.282	0.289	28.0	-----	-----
1 1600	300	0.602	0.007	0.262	0.268	28.0	-----	-----
1 1605	305	-----	-----	-----	-----	-----	0.1077	0.07
1 1615	315	0.640	0.005	0.243	0.247	28.0	-----	-----
1 1630	330	0.642	0.005	0.225	0.229	27.9	-----	-----
1 1645	345	0.675	0.005	0.210	0.214	28.0	-----	-----
1 1700	360	0.677	0.003	0.202	0.204	27.8	-----	-----
1 1703	363	-----	-----	-----	-----	-----	0.0860	0.04

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-UNC PM 600B	T DEG C ANA-TEMP	N-C6 PPH DB-5C-1	N-C7 PPH DB-5C-1	MECYC-C6 PPH DB-5C-1	N-C8 PPH DB-5C-1	N-C9 PPH DB-5C-1	N-C10 PPH DB-5C-1
----	-----	-----	-----	-----	0.0007	-----	0.0010
----	-----	0.1431	0.1044	0.2384	0.0790	0.1624	0.2244
.548	-----	-----	-----	-----	-----	-----	-----
.543	27.1	0.1374	0.1020	0.2307	0.0765	0.1579	0.2222
-----R	27.7	-----	-----	-----	-----	-----	-----
.535	28.1	-----	-----	-----	-----	-----	-----
.529	28.4	-----	-----	-----	-----	-----	-----
.525	28.2	0.1369	0.0968	0.2286	0.0758	0.1385	0.2205
.515	27.5	-----	-----	-----	-----	-----	-----
.504	27.5	-----	-----	-----	-----	-----	-----
.495	27.7	-----	-----	-----	-----	-----	-----
.483	27.8	-----	-----	-----	-----	-----	-----
.468	27.9	0.1300	0.0919	0.2146	0.0714	0.1467	0.2062
.456	27.9	-----	-----	-----	-----	-----	-----
.443	28.0	-----	-----	-----	-----	-----	-----
.427	27.8	-----	-----	-----	-----	-----	-----
-----	-----	0.1189	0.0857	0.1992	0.0671	0.1357	-----A
.413	27.9	-----	-----	-----	-----	-----	-----
.396	27.8	-----	-----	-----	-----	-----	-----
.379	27.9	-----	-----	-----	-----	-----	-----
.357	27.9	-----	-----	-----	-----	-----	-----
-----	-----	0.0991B	0.0710B	0.1707B	0.0596B	0.1265B	0.1870B
.335	28.0	-----	-----	-----	-----	-----	-----
.313	28.0	-----	-----	-----	-----	-----	-----
.289	28.0	-----	-----	-----	-----	-----	-----
.268	28.0	-----	-----	-----	-----	-----	-----
-----	-----	0.1077	0.0781	0.1774	0.0620	0.1199	0.1572
.247	28.0	-----	-----	-----	-----	-----	-----
.229	27.9	-----	-----	-----	-----	-----	-----
.214	28.0	-----	-----	-----	-----	-----	-----
.204	27.8	-----	-----	-----	-----	-----	-----
-----	-----	0.0860	0.0611	0.1390	0.0489	0.0940	0.1310

ITC-721
JP-4 (SHALE) - NOX
1984 JANUARY 11

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C11 PPH DB-5C-1	N-C12 PPH DB-5C-1	N-C13 PPH DB-5C-1	TOLUENE PPH DB-5C-1	TOLUENE PPH 10'C-600	P-XYL PPH DB-5C-1	135-T PPH DB-5C
1 850	-130	0.0044	0.0153	0.0551	-----	0.0063	-----	0.00
1 956	-64	0.4165	0.6879	1.085	0.1932	-----	0.1491	0.08
1 1010	-50	-----	-----	-----	-----	-----	-----	-----
1 1100	0	0.4195	0.7196	1.231	0.1872	-----	0.1453	0.08
1 1200	60	0.4253	0.7243	1.253	0.1854	-----	0.1427	0.08
1 1300	120	-----	-----	-----	-----	-----	-----	-----
1 1315	135	0.3939	0.6745	1.153	0.1741	-----	0.1307	0.07
1 1400	180	-----	-----	-----	-----	-----	-----	-----
1 1410	190	0.3673	0.6324	1.140	0.1619	-----	0.1206	0.06
1 1500	240	-----	-----	-----	-----	-----	-----	-----
1 1508	248	0.3400B	0.5179B	0.7062B	0.1435B	-----	0.1107B	0.06
1 1510	250	-----	-----	-----	-----	-----	-----	-----
1 1600	300	-----	-----	-----	-----	-----	-----	-----
1 1605	305	0.3250	0.5806	1.003	0.1463	-----	0.1068	0.05
1 1610	310	-----	-----	-----	-----	-----	-----	-----
1 1650	350	-----	-----	-----	-----	-----	-----	-----
1 1700	360	-----	-----	-----	-----	-----	-----	-----
1 1703	363	0.2484	0.4464	0.6979	0.1153	-----	0.0828	0.04

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	1-C4 PPH DMS-1
1 850	-130	0.0057	0.0040	0.0002	0.0004	0.0107	0.0010	0.00

----- NO DATA TAKEN

NOTES

- A B.C. SPIKED RIGHT ON TOP OF PEAK--NO DATA FOR THIS PEAK.
- B THIS SAMPLE WAS TRAPPED AT -50 C INSTEAD OF THE NORMAL -90 C.
- R THIS SHOULD NOT AFFECT THE HEAVY HYDROCARBONS.
- REJECTED DATA

27-JUL-84
PAGE 3

DLUENE PPH B-5C-1	TOLUENE PPH 10'C-600	P-XYL PPH DB-5C-1	135-TMB PPH DB-5C-1	UNKN #1 RAW DATA DB-5C-1	PAN PPH ECD-1	HCHO PPH CA	METHANE PPH PN-1
-----	0.0063	-----	0.0014	-----	0.000	-----	1.43
0.1932	-----	0.1491	0.0882	0.2127	-----	0.044	-----
-----	-----	-----	-----	-----	-----	-----	-----
0.1872	-----	0.1453	0.0862	0.2063	0.000	-----	-----
0.1854	-----	0.1427	0.0836	0.2037	0.002	0.022	-----
-----	-----	-----	-----	-----	-----	0.016	-----
0.1741	-----	0.1307	0.0763	0.1926	0.008	-----	-----
-----	-----	-----	-----	-----	-----	0.024	-----
0.1619	-----	0.1206	0.0695	0.1783	0.018	-----	-----
-----	-----	-----	-----	-----	0.028	-----	-----
0.1435B	-----	0.1107B	0.0668B	0.1720B	-----	-----	-----
-----	-----	-----	-----	-----	-----	0.024	-----
-----	-----	-----	-----	-----	0.041	-----	-----
0.1463	-----	0.1068	0.0583	0.1599	-----	-----	-----
-----	-----	-----	-----	-----	-----	0.038	-----
-----	-----	-----	-----	-----	-----	0.053	-----
-----	-----	-----	-----	-----	0.050	-----	-----
0.1153	-----	0.0828	0.0434	0.1284	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	1-C4= PPH DMS-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	
0.0004	0.0107	0.0010	0.0001	0.0003	0.0063	0.0069	

DATA FOR THIS PEAK.
ID OF THE NORMAL -90 C.
ICARBONS.

2

ITC-722
JP-4 (SHALE) - NOX
1984 JANUARY 12

0645: BEGIN WET AIR FLUSH.
0823: ITC OUTFLOW. ~50% R.H. @ 85 F. STOP FLUSH.
DUV LAMP STARTING DUMPED APPLE. RESTARTER ~1130
0846: INJECTED 240 MICROLITERS JP-4 (SHALE).
INJECTIONS: 3.16 ML NO1 0.64 ML NO2.
1015: 70% LIGHTS.
1616: DUMPED BAG AND FLUSHED.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.8	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.390	PPM
NO2-UNC	T 14B-1	0.152	PPM
N-C6	DB-5C-1	0.0530	PPM
N-C7	DB-5C-1	0.0386	PPM
MECYC-C6	DB-5C-1	0.0913	PPM
N-C8	DB-5C-1	0.0303	PPM
N-C9	DB-5C-1	0.0630	PPM
N-C10	DB-5C-1	0.0884	PPM
N-C11	DB-5C-1	0.1683	PPM
N-C12	DB-5C-1	0.2652	PPM
N-C13	DB-5C-1	0.3760	PPM
TOLUENE	DB-5C-1	0.0744	PPM
P-XYL	DB-5C-1	0.0578	PPM
135-TMB	DB-5C-1	0.0341	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2850	DB-5C-1	CHAMP: 30 M DB-5 QUARTZ CAP, 80% FID
2100	PN-1	RH-121: POROPAK-N 80% FID
2000	ECB-1	RH-121: 12' 5% CARBOWAX-400 80% ECD
2200	DMS-1	CHAMP: DIMETHYLSULFOLANE 80% FID
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1212	B-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790

ITC-722
JP-4 (SHALE) - NOX
1984 JANUARY 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	N- F DB-
1 913	-62	-----	-----	-----	-----	-----	0.0540	0.
1 1015	0	-----	0.390C	0.152C	0.542C	27.2C	0.0530	0.
1 1115	60	-----	-----	-----	-----	-----	0.0519	0.
1 1145	90	0.006	0.210	0.317	0.524	27.6	-----	--
1 1200	105	0.011	0.179	0.342	0.519	27.6	-----	--
1 1215	120	0.015	0.150	0.368	0.515	27.5	0.0575	0.
1 1230	135	0.023	0.122	0.394	0.514	27.7	-----	--
1 1245	150	0.033	0.098	0.414	0.510	27.6	-----	--
1 1300	165	0.048	0.077	0.428	0.503	27.8	-----	--
1 1315	180	0.064	0.060	0.441	0.499	27.7	0.0526	0.
1 1330	195	0.085	0.047	0.450	0.495	27.9	-----	--
1 1345	210	0.109	0.037	0.455	0.490	28.0	-----	--
1 1400	225	0.137	0.030	0.456	0.484	28.0	-----	--
1 1415	240	0.165	0.025	0.453	0.476	28.0	0.0509	0.
1 1430	255	0.196	0.021	0.451	0.470	28.0	-----	--
1 1445	270	0.227	0.018	0.448	0.464	28.0	-----	--
1 1500	285	0.263	0.015	0.440	0.453	28.1	-----	--
1 1515	300	0.299	0.013	0.432	0.444	28.1	0.0510	0.
1 1530	315	0.334	0.012	0.418	0.428	28.2	-----	--
1 1545	330	0.371	0.011	0.401	0.410	28.2	-----	--
1 1600	345	0.408	0.010	0.380	0.388	27.8	-----	--
1 1615	360	0.449	0.009	0.360	0.368	27.6	-----B	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C11 PPM DB-5C-1	N-C12 PPM DB-5C-1	N-C13 PPM DB-5C-1	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	UNI RAI DB-
1 824	-111	-----	-----	-----	-----	-----	-----	--
1 913	-62	0.1683	0.2624	0.3867	0.0755	0.0571	0.0348	0.
1 1010	-5	-----	-----	-----	-----	-----	-----	--
1 1015	0	0.1683	0.2652	0.3760	0.0744	0.0578	0.0341	0
1 1115	60	0.1618	0.2511	0.3641	0.0706	0.0548	0.0329	0
1 1215	120	0.1761	0.2726	0.3795	0.0788	0.0595	0.0341	0
1 1315	180	0.1654	0.2400	0.3332	0.0719	0.0536	0.0300	0
1 1415	240	0.1569	0.2408	0.3346	0.0704	0.0517	0.0287	0
1 1515	300	0.1247	0.1957	0.0746	-----A	0.0408	0.0208	0
1 1605	350	-----	-----	-----	-----	-----	-----	--
1 1615	360	0.1176B	0.1864B	0.2536B	0.0550B	0.0394B	0.0196B	-

----- NO DATA TAKEN

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PAGE 2

X-UNC PPM 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1	N-C9 PPM DB-5C-1	N-C10 PPM DB-5C-1
-----	-----	0.0540	0.0391	0.0928	0.0306	0.0635	0.0890
0.542C	27.2C	0.0530	0.0386	0.0913	0.0303	0.0630	0.0884
-----	-----	0.0519	0.0375	0.0887	0.0295	0.0617	0.0865
0.524	27.6	-----	-----	-----	-----	-----	-----
0.519	27.6	-----	-----	-----	-----	-----	-----
0.515	27.5	0.0575	0.0406	0.0957	0.0319	0.0656	0.0929
0.514	27.7	-----	-----	-----	-----	-----	-----
0.510	27.6	-----	-----	-----	-----	-----	-----
0.503	27.8	-----	-----	-----	-----	-----	-----
0.499	27.7	0.0526	0.0371	0.0870	0.0292	0.0593	0.0835
0.495	27.9	-----	-----	-----	-----	-----	-----
0.490	28.0	-----	-----	-----	-----	-----	-----
0.484	28.0	-----	-----	-----	-----	-----	-----
0.476	28.0	0.0509	0.0384	0.0854	0.0292	0.0590	0.0825
0.470	28.0	-----	-----	-----	-----	-----	-----
0.464	28.0	-----	-----	-----	-----	-----	-----
0.453	28.1	-----	-----	-----	-----	-----	-----
0.444	28.1	0.0510	0.0308	0.0696	0.0242	0.0452	0.0649
0.428	28.2	-----	-----	-----	-----	-----	-----
0.410	28.2	-----	-----	-----	-----	-----	-----
0.388	27.8	-----	-----	-----	-----	-----	-----
0.368	27.6	-----B	0.0295B	0.0651B	0.0234B	0.0454B	0.0629B

DLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	UNKNOWN RAW DATA DB-5C-1	PAN PPM ECD-1	HCHO PPM CA	METHANE PPM PN-1	ETHANE PPM PN-1
-----	-----	-----	-----	0.000	-----	1.52	0.0045
0.0755	0.0571	0.0348	0.0801	-----	0.010	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0.0744	0.0578	0.0341	0.0785	0.000	-----	-----	-----
0.0706	0.0548	0.0329	0.0771	0.002	0.018	-----	-----
0.0788	0.0595	0.0341	0.0895	0.003	0.006	-----	-----
0.0719	0.0536	0.0300	0.0810	0.006	0.020	-----	-----
0.0704	0.0517	0.0287	0.0755	0.013	0.018	-----	-----
-----A	0.0408	0.0208	0.0982	0.020	0.012	-----	-----
-----	-----	-----	-----	-----	0.032	-----	-----
0.0550B	0.0394B	0.0196B	-----B	0.028	-----	-----	-----

D A147 786

ATMOSPHERIC PHOTOCHEMICAL MODELING OF TURBINE ENGINE
FUELS PHASE I EXPERIMENT (U) CALIFORNIA UNIV RIVERSIDE
STATEWIDE AIR POLLUTION RESEARCH CENTER

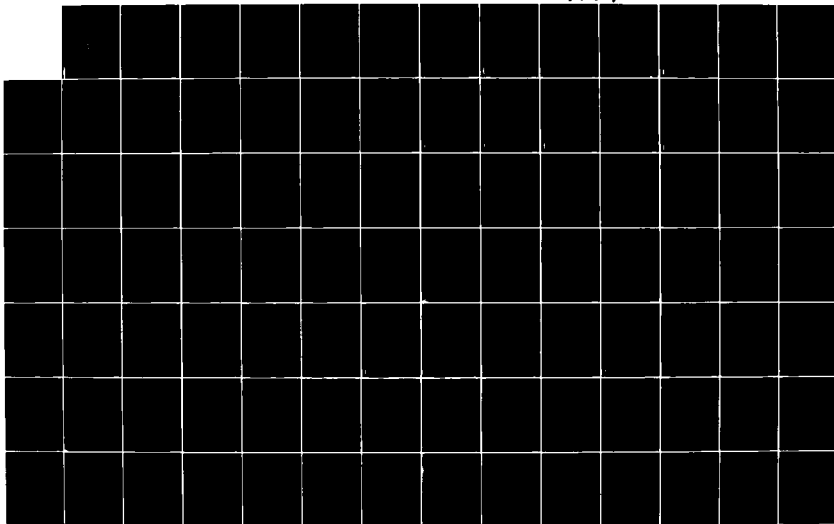
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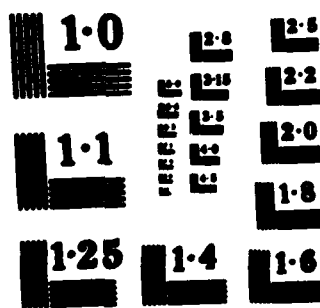
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W P CARTER ET AL SEP 84

FIG 4/1

NL





ITC-722
JP-4 (SHALE) - NOX
1984 JANUARY 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	ACETYLEN PPH DMS-1	ACET1 PP PN-
1 824	-111	0.0034	0.0002	0.0004	0.0044	0.0009	0.0041	0.0

----- NO DATA TAKEN

NOTES

A DOUBLE PEAK--INSEPARABLE.
B TRANSFERRED AT -50 C INSTEAD OF -90 C.
C TAKEN FROM STRIP CHART. NO 'APPLE' DATA.

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ENE PH -1	PROPENE PPH DMS-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
0044	0.0009	0.0041	0.0039

ITC-723
NOX-AIR IRRADIATION
1984 JANUARY 13

0645: BEGIN WET FLUSH.
0828: STOP FLUSH. ~50% R.H. @ 85 F.
0857: INJECTIONS: 3.16 ML NO;
0.316 ML NO SUPPLEMENT;
0.064 ML PROPENE;
0.064 ML N-BUTANE.
0930: 70% LIGHTS.
1135: DUMP AND FLUSH.
1240: DUMP.
1316: FLUSH ON.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.7	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.406	PPM
NO2-UNC	T 14B-1	0.096	PPM
PROPENE	DMS-1	0.0117	PPM
N-C4	DMS-1	0.0105	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1212	D-1212	DASIBI 1212 OZONE MONITOR
2100	PN-1	RH-1211 POROPAK-N GC FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-723
NOX-AIR IRRADIATION
1984 JANUARY 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	T DEG C ANA-TEMP	LNC4/C3=	PROPE PPH DMS-
1 829	-61	-----	-----	-----	-----	-----	-----	0.00
1 908	-22	-----	-----	-----	-----	-----	-0.0410	0.01
1 917	-13	0.002	0.406	0.096	0.500	-----	-----	----
1 930	0	0.002	0.407	0.097	0.501	26.7	-0.0469	0.01
1 945	15	0.002	0.402	0.107	0.508	27.0	-0.0096	0.01
1 1000	30	0.002	0.398	0.111	0.507	27.4	0.0295	0.01
1 1015	45	0.002	0.393	0.118	0.509	27.7	0.0824	0.01
1 1030	60	0.002	0.387	0.126	0.512	28.0	0.1658	0.00
1 1045	75	0.002	0.378	0.138	0.514	28.1	0.2182	0.00
1 1100	90	0.002	0.369	0.139	0.506	28.3	0.2794	0.00
1 1115	105	0.002	0.360	0.156	0.514	27.9	0.3213	0.00
1 1120	110	-----	-----	-----	-----	-----	-----	----
1 1130	120	0.002	0.350	0.177	0.526	28.0	0.4131	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	ACETALD PPH 10'C-600	TOLUENE PPH 10'C-600	PROX PPH 10'C-6
1 829	-61	0.0060	0.0041	0.0087	0.0085	0.0003	0.0016	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC PM IB-1	T DEG C ANA-TEMP	LNC4/C3=	PROPENE PPM DMS-1	N-C4 PPM DMS-1	HCHO PPM CA	PAN PPM ECD-1	METHANE PPM PN-1
----	-----	-----	0.0009	0.0002	-----	0.000	1.57
----	-----	-0.0410	0.0117	0.0105	-----	-----	-----
.500	-----	-----	-----	-----	0.020	-----	-----
.501	26.7	-0.0469	0.0117	0.0105	-----	-----	-----
.508	27.0	-0.0096	0.0113	0.0105	-----	-----	-----
.507	27.4	0.0295	0.0108	0.0104	-----	-----	-----
.509	27.7	0.0824	0.0102	0.0103	-----	-----	-----
.512	28.0	0.1658	0.0093	0.0103	-----	-----	-----
.514	28.1	0.2182	0.0088	0.0102	-----	-----	-----
.506	28.3	0.2794	0.0082	0.0101	-----	-----	-----
.514	27.9	0.3213	0.0078	0.0100	-----	-----	-----
----	-----	-----	-----	-----	0.010	-----	-----
.526	28.0	0.4131	0.0070	0.0099	-----	-----	-----

YLEN PM -1	ACETALD PPM 10'C-600	TOLUENE PPM 10'C-600	PROX PPM 10'C-600	PROPANE PPM DMS-1	I-C4 PPM DMS-1
0085	0.0003	0.0016	0.0004	0.0033	0.0004

ITC-724
NOX-AIR IRRADIATION
1984 JANUARY 17

0810: DUMPED BAG.
0823: FIRST FILL.
0831: DUMPED BAG.
0842: SECOND FILL.
0901: DUMPED BAG.
0914: THIRD FILL.
0944: COLUMBIA NOX ANALYZER ON LINE INSTEAD OF TECO.
(TECO HAS PROBLEMS SAMPLING FOR NO2)
1020: INJECTIONS: 1.58 ML NO1
 0.32 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE.
1045: 70X LIGHTS ON.
1245: RUN ENDED.
1430: DUMPED BAG.

T=0 AT 1045 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.8	1.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.255	PPH
NO2-UNC	C-1600B	0.056	PPH
PROPENE	DMS-1	0.0112	PPH
N-C4	DMS-1	0.0100	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-1211 POROPAK-N GC/ FID
2000	ECD-1	RM-1211 12' 5X CARBOWAX-400 GC/ ECD
2920	10'C-400	RM-1211 10' 10X CARBOWAX-400 GC/ FID
2200	DMS-1	RM-1211 DIMETHYLBULFOLANE GC/ FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIDI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR, SN1223790

ITC-724
NOX-AIR IRRADIATION
1984 JANUARY 17

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	T DEG C ANA-TEMP	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-
1 949	-56	-----	-----	-----	-----	-----	0.0008	0.00
1 1015	-30	0.002	0.006	0.001	-----	-----	-----	-----
1 1030	-15	0.002	0.257	0.072	-----	-----	-----	-----
1 1034	-11	-----	-----	-----	-----	-0.0515	0.0118	0.01
1 1043	-2	-----	-----	-----	-----	-----	-----	-----
1 1045	0	0.001	0.255	0.056	-----	-0.0440	0.0112	0.01
1 1100	15	0.002	0.252	0.057	25.0	-0.0338	0.0117	0.01
1 1115	30	0.002	0.248	0.058	25.6	-0.0070	0.0116	0.01
1 1130	45	0.002	0.245	0.056	26.0	0.0153	0.0113	0.01
1 1145	60	0.002	0.239	0.059	26.2	0.0436	0.0108	0.01
1 1200	75	0.002	0.234	0.062	26.3	0.0684	0.0101	0.01
1 1215	90	0.002	0.227	0.072	26.5	0.0916	0.0102	0.01
1 1230	105	0.002	0.223	0.066	26.6	0.1400	0.0096	0.01
1 1235	110	-----	-----	-----	-----	-----	-----	-----
1 1245	120	0.002	0.217	0.068	26.7	0.1597	0.0093	0.01
1 1300	135	-----	-----	-----	23.1	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600	TOLUE PPH 10'C-600
1 949	-56	0.0043	0.0048	0.0046	0.0006	0.0004	0.0001	0.00

----- NO DATA TAKEN

NOTES

A FLASK BROKE - NO SAMPLE.

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PAGE 2

C EMP	LNC4/C3=	PROPENE PPH DMS-1	N-C4 PPH DMS-1	HCHO PPH CA	PAN PPH ECD-1	METHANE PPH PN-1	ETHENE PPH PN-1
---	-----	0.0008	0.0002	-----	0.000	1.78	0.0046
---	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
---	-0.0515	0.0118	0.0104	-----A	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
---	-0.0440	0.0112	0.0100	-----	-----	-----	-----
25.0	-0.0338	0.0117	0.0106	-----	-----	-----	-----
25.6	-0.0070	0.0116	0.0108	-----	-----	-----	-----
26.0	0.0153	0.0113	0.0108	-----	-----	-----	-----
26.2	0.0436	0.0108	0.0106	-----	-----	-----	-----
26.3	0.0684	0.0101	0.0101	-----	-----	-----	-----
26.5	0.0916	0.0102	0.0105	-----	-----	-----	-----
26.6	0.1400	0.0096	0.0103	0.014	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
26.7	0.1597	0.0093	0.0102	-----	-----	-----	-----
23.1	-----	-----	-----	-----	-----	-----	-----

TALD PM	ACETONE PPH 10'C-600	HEK PPH 10'C-600	TOLUENE PPH 10'C-600	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0006	0.0004	0.0001	0.0006	0.0028	0.0004

ITC-725
JP-4 (SHALE) - NOX
1984 JANUARY 18

0805: DUMP BAG.
0825: SECOND FILL.
0859: THIRD FILL.
0902: FOURTH FILL. ~50% R.H. @ 85 F.
0915: INJECTION: 240 MICROLITERS JP-4 SHALE.
1045: 70% LIGHTS.
1646: DUMP BAG. BACK FILL, THEN FLUSH.
1707: STOP FLUSH.

T=0 AT 1045 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.7	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.176	PPH
NO2-UNC	C-1600B	0.045	PPH
N-C6	DB-5C-1	0.0438	PPH
N-C7	DB-5C-1	0.0321	PPH
MECYC-C6	DB-5C-1	0.0766	PPH
N-C8	DB-5C-1	0.0255	PPH
N-C9	DB-5C-1	0.0529	PPH
N-C10	DB-5C-1	0.0739	PPH
N-C11	DB-5C-1	0.1179	PPH
N-C12	DB-5C-1	0.1099	PPH
N-C13	DB-5C-1	0.1073	PPH
TOLUENE	DB-5C-1	0.0629	PPH
P-XYL	DB-5C-1	0.0487	PPH
135-TMB	DB-5C-1	0.0289	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
2850	DB-5C-1	RH-1211 30 M DB-5 QUARTZ CAP, GC1 FID
1212	B-1212	DASIDI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR, SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A

ITC-725
JP-4 (SHALE) - NOX
1984 JANUARY 18

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	N-C7 PPM DB-5C
1 940	-65	-----	-----	-----	-----	-----	0.0462	0.03
1 1030	-15	0.002	0.178	0.043	0.221	-----	-----	-----
1 1045	0	0.002	0.176	0.045	0.222	-----	0.0438	0.03
1 1100	15	0.002	0.161	0.062	0.223	29.9	-----	-----
1 1115	30	0.002	0.142	0.080	0.223	27.3	-----	-----
1 1130	45	0.023	0.123	0.098	0.221	27.7	-----	-----
1 1145	60	0.002	0.103	0.116	0.218	28.0	0.0452	0.03
1 1200	75	0.007	0.081	0.132	0.213	28.0	-----	-----
1 1215	90	0.014	0.061	0.149	0.210	27.2	-----	-----
1 1230	105	0.024	0.046	0.160	0.206	27.9	-----	-----
1 1245	120	0.039	0.032	0.170	0.202	27.6	0.0433	0.03
1 1300	135	0.056	0.023	0.173	0.196	27.4	-----	-----
1 1315	150	0.076	0.017	0.175	0.191	27.4	-----	-----
1 1330	165	0.101	0.012	0.175	0.187	27.5	-----	-----
1 1345	180	0.126	0.009	0.172	0.181	27.5	0.0419	0.03
1 1400	195	0.153	0.006	0.171	0.177	27.5	-----	-----
1 1415	210	0.180	0.004	0.166	0.171	27.6	-----	-----
1 1430	225	0.210	0.004	0.177	0.182	27.6	-----	-----
1 1445	240	0.239	0.003	0.159	0.162	27.6	0.0386	0.02
1 1500	255	0.271	0.001	0.153	0.155	27.6	-----	-----
1 1515	270	0.303	0.001	0.148	0.150	27.6	-----	-----
1 1530	285	0.330	0.002	0.144	0.145	27.6	-----	-----
1 1545	300	0.360	0.000	0.139	0.140	27.6	0.0382	0.02
1 1600	315	0.388	0.000	0.133	0.134	27.7	-----	-----
1 1615	330	0.415	0.001	0.127	0.128	27.7	-----	-----
1 1630	345	0.434	0.001	0.124	0.124	27.7	-----	-----
1 1645	360	0.453	0.000	0.119	0.119	27.5	0.0344	0.02

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	T DEG C ANA-TEMP	N-C6 PPH DB-5C-1	N-C7 PPH DB-5C-1	MECYC-C6 PPH DB-5C-1	N-C8 PPH DB-5C-1	N-C9 PPH DB-5C-1	N-C10 PPH DB-5C-1
	-----	0.0462	0.0330	0.0788	0.0259	0.0534	0.0740
	-----	-----	-----	-----	-----	-----	-----
0.222	-----	0.0438	0.0321	0.0766	0.0255	0.0529	0.0739
0.223	29.9	-----	-----	-----	-----	-----	-----
0.223	27.3	-----	-----	-----	-----	-----	-----
0.221	27.7	-----	-----	-----	-----	-----	-----
0.218	28.0	0.0452	0.0399	0.0782	0.0259	0.0536	0.0736
0.213	28.0	-----	-----	-----	-----	-----	-----
0.210	27.2	-----	-----	-----	-----	-----	-----
0.206	27.9	-----	-----	-----	-----	-----	-----
0.202	27.6	0.0433	0.0314	0.0742	0.0248	0.0511	0.0705
0.196	27.4	-----	-----	-----	-----	-----	-----
0.191	27.4	-----	-----	-----	-----	-----	-----
0.187	27.3	-----	-----	-----	-----	-----	-----
0.181	27.5	0.0419	0.0305	0.0720	0.0241	0.0488	0.0669
0.177	27.5	-----	-----	-----	-----	-----	-----
0.171	27.6	-----	-----	-----	-----	-----	-----
0.182	27.6	-----	-----	-----	-----	-----	-----
0.162	27.6	0.0386	0.0291	0.0674	0.0230	0.0458	0.0631
0.155	27.6	-----	-----	-----	-----	-----	-----
0.150	27.6	-----	-----	-----	-----	-----	-----
0.145	27.6	-----	-----	-----	-----	-----	-----
0.140	27.6	0.0382	0.0278	0.0633	0.0221	0.0436	0.0598
0.134	27.7	-----	-----	-----	-----	-----	-----
0.128	27.7	-----	-----	-----	-----	-----	-----
0.124	27.7	-----	-----	-----	-----	-----	-----
0.119	27.5	0.0344	0.0263	0.0589	0.0213	0.0399	0.0553

ITC-725
JP-4 (SHALE) - NOX
1984 JANUARY 18

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C11 PPH DB-5C-1	N-C12 PPH DB-5C-1	N-C13 PPH DB-5C-1	TOLUENE PPH DB-5C-1	TOLUENE PPH 10'C-600	P-XYL PPH DB-5C-1	13 DB
1 842	-123	-----	-----	-----	-----	0.0004	-----	-
1 940	-65	0.1142	0.1054	0.1085	0.0642	-----	0.0493	0
1 1045	0	0.1179	0.1099	0.1073	0.0629	-----	0.0487	0
1 1145	60	0.1206	0.1127	0.1069	0.0641	-----	0.0493	0
1 1245	120	0.1143	0.1071	0.0998	0.0607	-----	0.0453	0
1 1345	180	0.1066	0.1004	0.0893	0.0587	-----	0.0432	0
1 1445	240	0.1008	0.0968	0.0843	0.0553	-----	0.0405	0
1 1545	300	0.0945	0.0921	0.0893	0.0526	-----	0.0374	0
1 1635	350	-----	-----	-----	-----	-----	-----	-
1 1645	360	0.0876	0.0871	0.0818	0.0493	-----	0.0340	0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I D
1 842	-123	0.0004	0.0005	1.49	0.0042	0.0035	0.0004	0

----- NO DATA TAKEN

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UENE PM 5C-1	TOLUENE PPH 10'C-600	P-XYL PPH DB-5C-1	135-TMB PPH DB-5C-1	UNKN #1 RAW DATA DB-5C-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
-----	0.0004	-----	-----	-----	0.000	-----	0.0006
0642	-----	0.0493	0.0298	72.39	-----	0.022	-----
0629	-----	0.0487	0.0289	67.18	0.000	-----	-----
0641	-----	0.0493	0.0249	66.71	0.000	0.024	-----
0607	-----	0.0453	0.0265	63.39	0.004	0.016	-----
0587	-----	0.0432	0.0243	61.66	0.008	0.026	-----
0553	-----	0.0405	0.0219	57.96	0.014	0.042	-----
0526	-----	0.0374	0.0201	54.47	0.020	0.042	-----
-----	-----	-----	-----	-----	-----	0.053	-----
0493	-----	0.0340	0.0178	53.34	0.029	-----	-----

ANE PM -1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
0042	0.0035	0.0004	0.0003	0.0052	0.0008	0.0106	0.0121

ITC-726
NOX-AIR IRRADIATION
1984 JANUARY 19

0645: WET FLUSH ON.
0800: AIR AT OUTLET 68 F WET BULB, 79 F DRY BULB.
STOP FLUSH.
0853: INJECTIONS: 3.16 ML NO1
0.064 ML PROPENE1
0.064 ML N-BUTANE1
0.64 ML NO2.
0915: 70% LIGHTS
1120: DUMP BAG.
1445-1626: FLUSH BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.6	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	COL-1600	0.389	PPM
NO2-UNC	COL-1600	0.117	PPM
PROPENE	DMS-1	0.0115	PPM
N-C4	DMS-1	0.0103	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	COL-1600	COLUMBIA 1600 NO-NOX ANALYZER
3790	ANA-TEMP	ANALOGIC1 SN1223790
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-724
NOX-AIR IRRADIATION
1984 JANUARY 19

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH COL-1600	NO2-UNC PPH COL-1600	NOX-UNC PPH COL-1600	T DEG C ANA-TEMP	LNC4/C3= DMS-1	PROP PPH DMS-1
1 825	-50	-----	-----	-----	-----	-----	-----	0.0
1 845	-30	0.002	0.000	0.006	0.005	-----	-----	---
1 857	-18	-----	-----	-----	-----	-----	-0.0255	0.0
1 900	-15	0.002	0.393	0.117	0.510	-----	-----	---
1 905	-10	-----	-----	-----	-----	-----	-----	---
1 915	0	0.002	0.389	0.117	0.506	-----	-0.0419	0.0
1 930	15	0.002	0.389	0.117	0.505	26.6	-0.0215	0.0
1 945	30	0.002	0.383	0.123	0.505	27.0	0.0097	0.0
1 1000	45	0.002	0.381	0.122	0.502	27.5	0.0599	0.0
1 1015	60	0.002	-----R	-----R	-----R	27.7	0.0861	0.0
1 1030	75	0.002	0.376	0.124	0.499	27.8	0.1292	0.0
1 1045	90	0.002	0.371	0.128	0.499	27.9	0.1570	0.0
1 1100	105	0.002	0.367	0.128	0.494	28.1	0.1903	0.0
1 1105	110	-----	-----	-----	-----	-----	-----	---
1 1115	120	0.002	0.359	0.133	0.492	28.2	0.2127	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PROPANE PPH DMS-1	I-1 PPH DMS-1
1 825	-50	0.0041	0.0176	0.0163	0.0008	0.0012	0.0032	0.0

----- NO DATA TAKEN

NOTES

R REJECTED DATA.

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UNC PM	T DEG C ANA-TEMP	LNC4/C3= DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	HCHO PPM CA	METHANE PPM PN-1	ETHENE PPM PN-1
1600			0.0009	0.0002		0.18	0.0109
.005							
.510		-0.0255	0.0112	0.0102			
					0.020		
.506		-0.0419	0.0115	0.0103			
.505	26.6	-0.0215	0.0114	0.0104			
.505	27.0	0.0097	0.0111	0.0104			
.502	27.5	0.0599	0.0102	0.0101			
---R	27.7	0.0861	0.0097	0.0099			
.499	27.8	0.1292	0.0096	0.0103			
.499	27.9	0.1570	0.0093	0.0102			
.494	28.1	0.1903	0.0089	0.0101			
					0.000		
.492	28.2	0.2127	0.0086	0.0099			

TALD PM	ACETONE PPM 10'C-600	PROPANE PPM DMS-1	I-C4 PPM DMS-1
0008	0.0012	0.0032	0.0004

ITC-728
PROPENE-NOX
1984 JANUARY 20

0645: BEGIN WET FLUSH.
0807: STOP FLUSH. WET BULB 70 F, DRY BULB 81 F.
0838: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
6.4 ML PROPENE.

0900: 70X LIGHTS.
FLUSH BAG.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.7	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.370	PPH
NO2-UNC	C-1600B	0.104	PPH
PROPENE	DMS-1	1.0460	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1212	D-1212	DASIBI 1212 OZONE MONITOR
1413	D-1413	DASIBI 1413 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2100	PN-1	RM-1211 POROPAK-N GC FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR, SN1223790

ITC-728
PROPENE-NOX
1984 JANUARY 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	OZONE PPM D-1413	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	PROP PP DMS
1 816	-44	-----	-----	-----	-----	-----	-----	0.0
1 830	-30	0.007	-----	0.092	0.032	0.124	-----	---
1 842	-18	-----	-----	-----	-----	-----	-----	1.
1 845	-15	0.002	-----	0.374	0.104	0.477	-----	---
1 850	-10	-----	-----	-----	-----	-----	-----	---
1 900	0	0.002	-----	0.370	0.104	0.473	-----	1.
1 915	15	0.005	0.096	0.331	0.148	0.475	26.6	---
1 930	30	0.005	0.001	0.276	0.199	0.470	27.1	---
1 945	45	0.005	0.001	0.217	0.251	0.464	27.6	---
1 1000	60	0.008	0.001	0.164	0.296	0.456	27.8	0.8
1 1015	75	0.021	0.001	0.112	0.339	0.447	27.0	---
1 1030	90	0.041	0.001	0.067	0.371	0.434	26.7	---
1 1045	105	0.083	0.002	0.037	0.389	0.421	26.6	---
1 1100	120	0.144	0.001	0.021	0.388	0.404	26.6	0.6
1 1115	135	0.219	0.213	0.013	0.376	0.384	26.6	---
1 1130	150	0.294	0.282	0.010	0.363	0.369	26.5	---
1 1145	165	0.357	0.344	0.007	0.336	0.339	26.5	---
1 1200	180	0.412	0.403	0.004	0.317	0.318	26.6	0.2
1 1215	195	0.461	0.449	0.005	0.300	0.300	26.7	---
1 1230	210	0.499	0.484	0.004	0.286	0.286	26.8	---
1 1245	225	0.530	0.514	0.003	0.275	0.275	26.9	---
1 1300	240	0.554	0.537	0.003	0.266	0.266	26.8	0.1
1 1315	255	0.573	0.553	0.004	0.253	0.252	26.5	---
1 1330	270	0.589	0.570	0.003	0.243	0.242	26.4	---
1 1345	285	0.600	0.587	0.003	0.236	0.235	26.4	---
1 1400	300	0.611	0.591	0.002	0.230	0.229	26.8	0.0
1 1415	315	0.615	0.595	0.002	0.224	0.223	26.7	---
1 1430	330	0.620	0.602	0.003	0.218	0.217	26.6	---
1 1445	345	0.623	0.603	0.002	0.213	0.212	26.7	---
1 1450	350	-----	-----	-----	-----	-----	-----	---
1 1500	360	0.625	0.604	0.002	0.210	0.209	26.8	0.0
1 1515	375	0.624	0.603	0.002	0.205	0.203	26.6	---
1 1530	390	0.622	0.601	0.002	0.201	0.200	26.6	---
1 1545	405	0.620	0.599	0.003	0.197	0.195	26.5	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	N-C4 PPM DMS-1	PROPANE PPM DMS-1	I- P DM
1 816	-44	0.0127	0.0068	0.0107	0.0105	0.0003	0.0033	0.

----- NO DATA TAKEN

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INC IDB	NOX-UNC PPH C-1600B	T DEB C ANA-TEMP	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	METHANE PPH PM-1
---	---	---	0.0010	0.000	---	0.0006	1.48
032	0.124	---	1.024	---	---	---	---
104	0.477	---	---	---	0.010	---	---
104	0.473	---	1.046	0.000	---	---	---
148	0.475	26.6	---	---	---	---	---
199	0.470	27.1	---	---	---	---	---
251	0.464	27.6	---	---	---	---	---
296	0.456	27.8	0.8550	0.003	0.085	0.0796	---
339	0.447	27.0	---	---	---	---	---
371	0.434	26.7	---	---	---	---	---
389	0.421	26.6	---	---	---	---	---
388	0.404	26.6	0.6382	0.026	0.243	0.1874	---
376	0.384	26.6	---	---	---	---	---
363	0.369	26.5	---	---	---	---	---
336	0.339	26.5	---	---	---	---	---
317	0.318	26.6	0.2813	---	0.372	0.2322	---
300	0.300	26.7	---	0.137A	---	---	---
286	0.286	26.8	---	---	---	---	---
275	0.275	26.9	---	---	---	---	---
266	0.266	26.8	0.1006	0.1908	0.354	0.2210	---
253	0.252	26.5	---	---	---	---	---
243	0.242	26.4	---	---	---	---	---
236	0.235	26.4	---	---	---	---	---
230	0.229	26.8	0.0343	0.270C	0.342	0.1965	---
224	0.223	26.7	---	---	---	---	---
218	0.217	26.6	---	---	---	---	---
213	0.212	26.7	---	---	0.299	---	---
210	0.209	26.8	0.0120	0.270C	---	0.1539	---
205	0.203	26.6	---	---	---	---	---
201	0.200	26.6	---	---	---	---	---
197	0.195	26.5	---	---	---	---	---

ILEN IN -1	N-C4 PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1105	0.0003	0.0033	0.0004

ITC-728
PROPENE-NOX
1984 JANUARY 20

NOTES

A	30 ML SAMPLE IN 70 ML N2.
B	20 ML SAMPLE IN 80 ML N2.
C	10 ML SAMPLE IN 90 ML N2.

ITC-729
THIOPHENE-NOX
1984 JANUARY 23

0645: START WET FLUSH.
0835: STOP FLUSH. OUTLET AIR 80 F DRY BULB, 70 F WET BULB.
0905: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
10.4 MICROLITERS THIOPHENE.
0945: 70% LIGHTS.
1547: DUMP BAG. GO TO FLUSH.
1700: FLUSH OFF.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.0	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.388	PPM
NO2-UNC	C-1600B	0.104	PPM
THIOPHEN	C-20M	0.431	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RH-121; POROPAK-N GC; FID
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
1400	C-20M	RH-121; C-20M/DC-703 GC; FID
2920	10'C-400	RH-121; 10' 10% CARBOWAX-600 GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A

ITC-729
THIOPHENE-NOX
1984 JANUARY 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	THIOPHEN PPH C-20M	PAN PPH ECD-
1 834	-71	-----	-----	-----	-----	-----	0.000	0.0
1 900	-45	0.002	0.000	0.002	0.001	-----	-----	-----
1 913	-32	-----	-----	-----	-----	-----	0.213A	-----
1 920	-25	-----	-----	-----	-----	-----	-----	-----
1 928	-17	-----	-----	-----	-----	-----	0.424	-----
1 930	-15	0.002	0.393	0.102	0.495	-----	-----	-----
1 945	0	0.002	0.388	0.104	0.492	-----	0.431	0.0
1 1000	15	0.002	0.378	0.113	0.491	26.4	-----	-----
1 1015	30	0.002	-----R	-----R	-----R	26.9	0.419	-----
1 1030	45	0.008	0.343	0.139	0.482	27.3	-----	-----
1 1045	60	0.002	0.321	0.152	0.473	27.6	0.404	0.0
1 1100	75	0.004	0.299	0.169	0.468	27.7	-----	-----
1 1115	90	0.006	0.277	0.178	0.453	27.8	0.385	-----
1 1130	105	0.008	0.252	0.192	0.444	26.8	-----	-----
1 1145	120	0.012	0.230	0.203	0.432	26.5	0.366	0.0
1 1200	135	0.014	0.208	0.215	0.422	26.6	-----	-----
1 1215	150	0.018	0.190	0.221	0.411	26.8	0.342	-----
1 1230	165	0.019	0.176	0.227	0.403	26.9	-----	-----
1 1245	180	0.024	0.157	0.235	0.391	27.0	0.323	0.0
1 1300	195	0.025	0.142	0.237	0.379	27.1	-----	-----
1 1315	210	0.031	0.127	0.242	0.369	27.1	0.310	-----
1 1330	225	0.032	0.113	0.244	0.357	27.2	-----	-----
1 1345	240	0.035	0.101	0.246	0.347	27.4	0.285	0.0
1 1400	255	0.040	0.090	0.246	0.336	27.5	-----	-----
1 1415	270	0.044	0.078	0.248	0.326	27.6	0.262	-----
1 1430	285	0.047	0.069	0.246	0.314	27.8	-----	-----
1 1445	300	0.054	0.060	0.246	0.307	26.9	0.249	0.0
1 1500	315	0.056	0.055	0.241	0.296	26.7	-----	-----
1 1515	330	0.058	0.051	0.238	0.289	26.4	0.234	-----
1 1530	345	0.064	0.045	0.234	0.278	26.2	-----	-----
1 1535	350	-----	-----	-----	-----	-----	-----	-----
1 1545	360	0.070	0.039	0.227	0.266	26.2	0.220	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	PROP PPH DMS
1 834	-71	0.0085	0.0067	0.0062	0.0063	0.0010	0.0002	0.0
----- NO DATA TAKEN								

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NC OB	T DEG C ANA-TEMP	THIOPHEN PPH C-20M	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	METHANE PPH PN-1
		0.000	0.000				1.58
01		0.213A		0.014			
		0.424					
195							
192		0.431	0.000				
191	26.4						
---R	26.9	0.419					
182	27.3						
173	27.6	0.404	0.000	0.006	0.0012	0.0015	
168	27.7						
153	27.8	0.385					
144	26.8						
432	26.5	0.366	0.000	0.004	0.0020	0.0009	
422	26.6						
411	26.8	0.342					
403	26.9						
391	27.0	0.323	0.000	0.006	0.0029	0.0008	
379	27.1						
369	27.1	0.310					
357	27.2						
347	27.4	0.285	0.002	0.016	0.0031	0.0007	
336	27.5						
326	27.6	0.262					
314	27.8						
307	26.9	0.249	0.002	0.024	0.0034	0.0007	
296	26.7						
289	26.4	0.234					
278	26.2			0.061			
266	26.2	0.220	0.004		0.0041	0.0006	

LEN N 1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
063	0.0010	0.0002	0.0032	0.0004

ITC-729
THIOPHENE-NOX
1984 JANUARY 23

NOTES

R REJECTED DATA.
A ATTENUATION OF 512 INSTEAD OF 4.

ITC-730
THIOPHENE - NOX
1984 JANUARY 24

0645: BEGIN WET FLUSH.
0826: STOP FLUSH. WET BULB 68 F, DRY BULB 80 F.
0900: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 42 MICROLITERS THIOPHENE.
0930: 70% LIGHTS.
1430: RUN OVER. DUMP BAG, GO TO FLUSH.
1620: STOP FLUSH.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.9	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.360	PPM
NO2-UNC	C-1600B	0.111	PPM
THIOPHEN	C-20M	1.777	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-1211 DINETHYLSULFOLANE GC1 FID
2100	PM-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
1400	C-20M	RM-1211 C-20M/DC-703 GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-730
THIOPHENE - NOX
1984 JANUARY 24

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	1 DEG ANA-1
1 830	-60	-----	-----	-----	-----	-----	-----	---
1 900	-30	0.002	0.000	-----	0.001	-----	0.000	---
1 911	-19	-----	-----	-----	-----	-----	-----	---
1 915	-15	0.002	0.362	-----	0.111	-----	0.473	---
1 925	-5	-----	-----	-----	-----	-----	-----	---
1 930	0	0.002	0.360	-----	0.111	-----	0.472	---
1 945	15	0.002	0.337	-----	0.136	-----	0.472	---
1 1000	30	0.014	0.282	-----	0.181	-----	0.463	---
1 1015	45	0.039	0.212	-----	0.237	-----	0.449	---
1 1030	60	0.078	0.145	-----	0.280	-----	0.424	---
1 1045	75	0.129	0.088	-----	0.302	-----	0.390	---
1 1100	90	0.187	0.054	0.053	0.295	0.379	0.347	---
1 1115	105	0.239	0.038	0.037	0.265	0.374	0.302	---
1 1130	120	0.285	0.027	0.028	0.230	0.367	0.256	---
1 1145	135	0.319	0.023	0.021	0.194	0.362	0.217	---
1 1200	150	0.353	0.017	0.017	0.160	0.352	0.177	---
1 1215	165	0.377	0.015	0.015	0.126	0.348	0.141	---
1 1230	180	0.395	0.012	0.012	0.095	0.343	0.107	---
1 1245	195	0.405	0.012	0.010	0.068	0.337	0.079	---
1 1300	210	0.401	0.009	0.010	0.048	0.333	0.058	---
1 1315	225	0.388	0.008	0.009	0.035	0.334	0.043	---
1 1330	240	0.364	0.008	0.009	0.029	0.335	0.037	---
1 1345	255	0.344	0.007	0.009	0.026	0.336	0.033	---
1 1400	270	0.325	0.007	0.009	0.024	0.340	0.032	---
1 1415	285	0.311	0.006	0.009	0.023	0.341	0.030	---
1 1420	290	-----	-----	-----	-----	-----	-----	---
1 1430	300	0.294	0.008	0.009	0.024	0.341	0.031	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	RT=2.4' RAW DATA ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I- P DM
1 830	-60	-----	-----	1.41	0.006	0.004	0.0002	0.
1 930	0	0.0067	-----	-----	-----	-----	-----	---
1 1030	60	0.0042	-----	-----	-----	-----	-----	---
1 1130	120	0.0023	0.2880	-----	-----	-----	-----	---
1 1230	180	0.0015	0.6080	-----	-----	-----	-----	---
1 1330	240	0.0011	0.7520	-----	-----	-----	-----	---
1 1430	300	0.0010	0.7200	-----	-----	-----	-----	---

----- NO DATA TAKEN

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PM 600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	THIOPHEN PPM C-20M	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
0.001		0.000		0.000	0.000		
0.111		0.473		1.773			
0.111		0.472		1.777	0.000	0.010	
0.136		0.472	26.5				
0.181		0.463	25.2	1.710			
0.237		0.449	25.3				
0.280		0.424	25.4	1.563	0.000	0.030	0.0024
0.302		0.390	25.4				
0.295	0.379	0.347	25.4	1.421			
0.265	0.374	0.302	25.5				
0.230	0.367	0.256	25.5	1.254	0.003	0.026	0.0026
0.194	0.362	0.217	25.8				
0.160	0.352	0.177	26.0	1.128			
0.126	0.348	0.141	26.1				
0.095	0.343	0.107	26.1	0.983	0.005	0.067	0.0041
0.068	0.337	0.079	26.2				
0.048	0.333	0.058	26.2	0.868			
0.035	0.334	0.043	26.2				
0.029	0.335	0.037	26.2	0.772	0.007	0.010	0.0046
0.026	0.336	0.033	26.2				
0.024	0.340	0.032	26.3	0.714			
0.023	0.341	0.030	26.3			0.111	
0.024	0.341	0.031	26.3	0.659	0.007		0.0069
0.006	0.004	0.0002	0.0005	0.0056	0.0012	0.0046	0.0086

PM V-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0.006	0.004	0.0002	0.0005	0.0056	0.0012	0.0046	0.0086

ITC-731
NOX-AIR IRRADIATION
1984-JAN-25

0645: BEGIN WET FLUSH.
0821: STOP FLUSH. 79 F DRY BULB, 69 F WET BULB.
0845: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE
 SUPPLEMENT: 0.05 ML NO.
0915: 70% LIGHTS.
1117: DUMP BAG.
1445-1700: FLUSH BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.0	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.395	PPM
NO2-UNC	C-1600B	0.130	PPM
PROPENE	DMS-1	0.0111	PPM
N-C4	DMS-1	0.0101	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790

ITC-731
NOX-AIR IRRADIATION
1984-JAN-25

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	LNC4/C3= DMS-1	PRO P DM
1 820	-55	-----	-----	-----	-----	-----	-----	0.
1 845	-30	0.002	0.000	0.003	0.001	-----	-----	0.
1 851	-24	-----	-----	-----	-----	-----	-0.0469	0.
1 900	-15	0.002	0.399	0.129	0.527	-----	-----	---
1 910	-5	-----	-----	-----	-----	-----	-----	---
1 915	0	0.002	0.395	0.130	0.525	-----	-0.0232	0.
1 930	15	0.002	0.395	0.129	0.524	26.1	0.0049	0.
1 945	30	0.002	0.395	0.131	0.526	25.6	0.0489	0.
1 1000	45	0.002	0.392	0.126	0.518	25.6	0.0954	0.
1 1015	60	0.002	0.389	0.126	0.515	25.9	0.1435	0.
1 1030	75	0.002	0.384	0.130	0.514	26.0	0.1881	0.
1 1045	90	0.002	0.379	0.129	0.508	26.1	0.2441	0.
1 1100	105	0.002	0.375	0.129	0.504	26.2	0.2864	0.
1 1105	110	-----	-----	-----	-----	-----	-----	---
1 1115	120	0.002	0.371	0.128	0.498	26.3	0.3400	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	ETHANE PPH PN-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1 820	-55	0.0028	0.0041	0.0027	0.0027	0.0041	0.0004

----- NO DATA TAKEN

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UNC M 00B	T DEG C ANA-TEMP	LNC4/C3= DMS-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	METHANE PPH PN-1
			0.0013	0.0003	0.000		1.47
001							
		-0.0469	0.0117	0.0105			
527						0.032	
525		-0.0232	0.0111	0.0101			
524	26.1	0.0049	0.0109	0.0103			
526	25.6	0.0489	0.0105	0.0103			
518	25.6	0.0954	0.0101	0.0103			
515	25.9	0.1435	0.0096	0.0103			
514	26.0	0.1881	0.0090	0.0101			
508	26.1	0.2441	0.0084	0.0100			
504	26.2	0.2864	0.0081	0.0101		0.014	
498	26.3	0.3400	0.0077	0.0101			

YLEN PM S-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
0027	0.0041	0.0004

2

ITC-733
THIOPHENE-NOX
1984 JANUARY 26

0645: BEGIN WET FLUSH.
0820: STOP FLUSH. 68 F WET BULB, 78 F DRY BULB.
0845: INJECTIONS: 1.6 ML NO1
0.2 ML NO SUPPLEMENT
0.32 MICROLITERS NO2
10.4 MICROLITERS THIOPHENE.
0915: 70% LIGHTS.
1535: DUMP BAG.
1700: DUMP BAG. FLUSH FOR 1 HOUR.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.7	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.207	PPM
NO2-UNC	C-1600B	0.042	PPM
THIOPHEN	C-20M	0.432	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
1400	C-20M	RH-1211 C-20M/DC-703 GC1 FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790

ITC-733
THIOPHENE-NOX
1984 JANUARY 26

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	THIOPHEN PPM C-20M	HCH PF C/
1 812	-63	-----	-----	-----	-----	-----	0.000	---
1 830	-45	0.002	0.000	0.002	0.001	-----	-----	---
1 854	-21	-----	-----	-----	-----	-----	0.435	---
1 900	-15	0.002	0.209	0.041	0.250	-----	-----	---
1 905	-10	-----	-----	-----	-----	-----	-----	0.
1 915	0	0.002	0.207	0.042	0.248	-----	0.432	---
1 930	15	0.002	0.197	0.052	0.249	26.0	-----	---
1 945	30	0.002	0.181	0.066	0.247	26.2	-----	---
1 954	39	-----	-----	-----	-----	-----	0.414	---
1 1000	45	0.005	0.158	0.084	0.242	25.3	-----	---
1 1015	60	0.013	0.135	0.102	0.237	25.5	0.380	0.
1 1030	75	0.021	0.109	0.121	0.230	25.3	-----	---
1 1045	90	0.029	0.088	0.131	0.218	25.6	0.340	---
1 1100	105	0.040	0.070	0.139	0.209	25.4	-----	---
1 1115	120	0.055	0.054	0.141	0.195	25.6	0.299	0.
1 1130	135	0.067	0.041	0.139	0.180	25.5	-----	---
1 1145	150	0.083	0.032	0.136	0.167	25.6	0.262	---
1 1200	165	0.095	0.025	0.129	0.154	25.7	-----	---
1 1215	180	0.109	0.020	0.124	0.143	25.5	0.230	---
1 1230	195	0.121	0.016	0.118	0.134	25.8	-----	---
1 1245	210	0.134	0.012	0.111	0.123	25.6	0.201	---
1 1300	225	0.145	0.011	0.102	0.112	25.5	-----	---
1 1315	240	0.156	0.009	0.094	0.103	25.8	0.174	0.
1 1330	255	0.166	0.008	0.086	0.094	25.6	-----	---
1 1345	270	0.175	0.006	0.078	0.085	25.7	0.150	---
1 1400	285	0.185	0.005	0.071	0.076	25.7	-----	---
1 1415	300	0.195	0.004	0.066	0.070	25.6	0.132	0
1 1430	315	0.203	0.003	0.059	0.063	25.9	-----	---
1 1445	330	0.212	0.002	0.054	0.056	25.7	0.108	---
1 1500	345	0.215	0.004	0.047	0.051	25.7	-----	---
1 1505	350	-----	-----	-----	-----	-----	-----	0
1 1515	360	0.223	0.003	0.041	0.044	25.8	0.089	---
1 1530	375	0.229	0.002	0.038	0.040	25.6	-----	---
1 1545	390	0.235	0.002	0.034	0.036	25.9	-----	---
1 1600	405	0.242	0.001	0.031	0.031	25.8	-----	---
1 1615	420	0.244	0.001	0.028	0.029	25.7	-----	---
1 1630	435	0.247	0.000	0.028	0.027	25.9	-----	---
1 1645	450	0.248	0.000	0.025	0.025	25.7	-----	---
1 1700	465	0.242	0.000	0.024	0.024	25.7	-----	---

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-UNC PM 600B	T DEG C ANA-TEMP	THIOPHEN PPM C-20M	HCHO PPM CA	PAN PPM ECD-1	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	METHANE PPM PN-1
-----	-----	0.000	-----	0.000	-----	-----	1.55
.001	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.435	-----	-----	-----	-----	-----
.250	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.034	-----	-----	-----	-----
.248	-----	0.432	-----	0.000	-----	-----	-----
.249	26.0	-----	-----	-----	-----	-----	-----
.247	26.2	-----	-----	-----	-----	-----	-----
-----	-----	0.414	-----	-----	-----	-----	-----
.242	25.3	-----	-----	-----	-----	-----	-----
.237	25.5	0.380	0.022	0.000	-----	-----	-----
.230	25.3	-----	-----	-----	-----	-----	-----
.218	25.6	0.340	-----	-----	-----	-----	-----
.209	25.4	-----	-----	-----	-----	-----	-----
.195	25.6	0.299	0.024	-----	0.0079	0.0006	-----
.180	25.5	-----	-----	-----	-----	-----	-----
.167	25.6	0.262	-----	-----	-----	-----	-----
.154	25.7	-----	-----	-----	-----	-----	-----
.143	25.5	0.230	-----	0.002	0.0082	0.0004	-----
.134	25.8	-----	-----	-----	-----	-----	-----
.123	25.6	0.201	-----	-----	0.0044	0.0002	-----
.112	25.5	-----	-----	-----	-----	-----	-----
.103	25.8	0.174	0.028	0.003	-----	-----	-----
.094	25.6	-----	-----	-----	-----	-----	-----
.085	25.7	0.150	-----	-----	-----	-----	-----
.076	25.7	-----	-----	-----	-----	-----	-----
.070	25.6	0.132	0.042	0.005	-----	-----	-----
.063	25.9	-----	-----	-----	-----	-----	-----
.056	25.7	0.108	-----	-----	-----	-----	-----
.051	25.7	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.036	-----	-----	-----	-----
.044	25.8	0.089	-----	0.006	0.0033	0.0005	-----
.040	25.6	-----	-----	-----	-----	-----	-----
.036	25.9	-----	-----	-----	-----	-----	-----
.031	25.8	-----	-----	-----	-----	-----	-----
.029	25.7	-----	-----	-----	-----	-----	-----
.027	25.9	-----	-----	-----	-----	-----	-----
.025	25.7	-----	-----	-----	-----	-----	-----
.024	25.7	-----	-----	-----	-----	-----	-----

ITC-733
THIOPHENE-NOX
1984 JANUARY 26

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	PROPAI PPM DMS-
1 812	-63	0.0037	0.0016	0.0060	0.0056	0.0011	0.0003	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 3

TYLEN PPM N-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1
.0056	0.0011	0.0003	0.0037	0.0004

ITC-734
NOX-AIR IRRADIATION
1984 JANUARY 27

0645: START WET FLUSH.
0812: STOP FLUSH. 79 F DRY BULB, 68 F WET BULB.
1420: INJECTIONS: 1.6 ML NO;
0.32 ML NO2;
0.064 ML PROPENE;
0.064 ML N-BUTANE.
1445: 70% LIGHTS.
1645: DUMP BAG. REFILL. ONE HOUR FLUSH.

T=0 AT 1445 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.1	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.212	PPM
NO2-UNC	C-1600B	0.053	PPM
N-C4	DMS-1	0.0123	PPM
PROPENE	DMS-1	0.0130	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-1211 POROPAK-N GC; FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC; FID

ITC-734
NOX-AIR IRRADIATION
1984 JANUARY 27

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	LNC4/C3=	N-C4 PPM DMS-1	PROPE PPM DMS-
1 1347	-58	-----	-----	-----	-----	-----	0.0003	0.00
1 1415	-30	0.001	0.000	0.003	0.001	-----	-----	-----
1 1424	-21	-----	-----	-----	-----	0.0223	0.0125	0.01
1 1430	-15	0.002	0.211	0.052	0.263	-----	-----	-----
1 1434	-11	-----	-----	-----	-----	-----	-----	-----
1 1445	0	0.002	0.212	0.053	0.264	0.0144	0.0123	0.01
1 1500	15	0.002	0.210	0.058	0.267	0.0452	0.0125	0.01
1 1515	30	0.002	0.206	0.059	0.266	0.1097	0.0123	0.01
1 1530	45	0.002	0.199	0.064	0.263	0.1663	0.0121	0.01
1 1545	60	0.002	0.195	0.066	0.261	0.2449	0.0123	0.01
1 1600	75	0.002	0.189	0.070	0.258	0.3391	0.0115	0.00
1 1615	90	0.002	0.182	0.073	0.255	0.4033	0.0115	0.00
1 1630	105	0.002	0.177	0.076	0.253	0.4704	0.0114	0.00
1 1635	110	-----	-----	-----	-----	-----	-----	-----
1 1645	120	0.002	0.173	0.076	0.249	0.5399	0.0114	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPM PN-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-
1 1347	-58	1.43	0.0048	0.0055	0.0032	0.0033	0.0038	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

INC	LNC4/C3=	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
00B							
	-----	0.0003	0.0012	-----	0.000	-----	0.0026
001	-----	-----	-----	-----	-----	-----	-----
	0.0223	0.0125	0.0131	-----	-----	-----	-----
263	-----	-----	-----	-----	-----	-----	-----
	-----	-----	-----	-----	-----	0.012	-----
264	0.0144	0.0123	0.0130	-----	-----	-----	-----
267	0.0452	0.0125	0.0128	25.7	-----	-----	-----
266	0.1097	0.0123	0.0118	25.7	-----	-----	-----
263	0.1663	0.0121	0.0110	25.9	-----	-----	-----
261	0.2449	0.0123	0.0103	26.2	-----	-----	-----
258	0.3391	0.0115	0.0088	26.2	-----	-----	-----
255	0.4033	0.0115	0.0082	26.2	-----	-----	-----
253	0.4704	0.0114	0.0076	26.3	-----	-----	-----
	-----	-----	-----	-----	-----	0.014	-----
249	0.5399	0.0114	0.0071	26.4	-----	-----	-----

LEN	ACETYLEN PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
032	0.0033	0.0038	0.0005

ITC-735
PYRROLE-NOX
1984 FEBUARY 1

0645: BEGIN WET FLUSH.
0816: STOP FLUSH. 77 F DRY BULB, 65 F WET BULB.
~50% R.H. AT 80 F.
0839: INJECTIONS: 9 MICROLITERS PYRROLE:
3.2 ML NO1
0.64 ML NO2.
0945: 70% LIGHTS.
1145: LIGHTS OUT.
1438: DUMP BAG.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 101 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	22.9	2.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.420	PPM
NO2-UNC	C-1600B	0.066	PPM
PYRROLE	SP C-20M	0.5276	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2701	SP C-20M	RM-103; C20M/KOH SUPERPAK; FID(TENAX)

ITC-735
PYRROLE-NOX
1984 FEBUARY 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	PYRROLE PPM SP C-20M	PI PI ECI
1 815	-90	-----	-----	-----	-----	-----	0.0000	---
1 817	-88	-----	-----	-----	-----	-----	-----	0.
1 830	-75	0.002	0.000	0.001	0.000	-----	-----	---
1 858	-47	-----	-----	-----	-----	-----	0.5446	---
1 918	-27	-----	-----	-----	-----	-----	0.5560	---
1 930	-15	0.002	0.419	0.067	0.486	-----	-----	---
1 933	-12	-----	-----	-----	-----	-----	-----	---
1 945	0	0.002	0.420	0.066	0.486	-----	0.5276	0.
1 1000	15	0.023	0.196	0.263	0.458	25.8	-----	---
1 1015	30	0.319	0.017	0.282	0.298	26.0	0.0252	---
1 1030	45	0.304	0.014	0.244	0.258	25.1	-----	---
1 1045	60	0.289	0.013	0.230	0.243	25.1	0.0028	0.
1 1100	75	0.277	0.012	0.226	0.238	25.1	-----	---
1 1115	90	0.266	0.013	0.219	0.231	25.3	-----	---
1 1130	105	0.255	0.013	0.215	0.227	26.6	-----	---
1 1145	120	0.246	0.012	0.208	0.220	27.1	-----	---
1 1200	135	0.210	0.000	0.187	0.185	23.2	-----	---
1 1215	150	0.189	0.000	0.163	0.162	22.0	-----	---
1 1230	165	0.175	0.000	0.145	0.144	21.3	-----	---
1 1245	180	-----R	0.000	0.135	0.133	20.9	-----	---
1 1300	195	0.150	0.000	0.124	0.124	20.7	-----	---
1 1315	210	0.145	0.000	0.116	0.115	20.5	-----	---
1 1330	225	0.135	0.000	0.110	0.109	20.3	-----	---
1 1345	240	0.130	0.000	0.104	0.102	20.2	-----	---
1 1400	255	0.121	0.000	0.099	0.098	20.2	-----	---
1 1415	270	0.113	0.000	0.096	0.095	20.1	-----	---
1 1430	285	0.105	0.000	0.092	0.091	20.1	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	PROPANE PPM DMS-1	I- P DM
1 817	-88	0.0036	0.0067	0.0065	0.0013	0.0002	0.0044	0.

NO DATA TAKEN

NOTES

R REJECTED DATA

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-UNC PM 600B	T DEG C ANA-TEMP	PYRROLE PPM SP C-20M	PAN PPM ECD-1	ACETALD PPM 10'C-600	HCHO PPM CA	METHANE PPM PN-1	ETHENE PPM PN-1
-----	-----	0.0000	-----	-----	-----	-----	-----
-----	-----	-----	0.000	0.0008	-----	1.60	0.0043
.000	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.5446	-----	-----	-----	-----	-----
-----	-----	0.5560	-----	-----	-----	-----	-----
.486	-----	-----	-----	-----	0.022	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
.486	-----	0.5276	0.000	0.0013	-----	-----	-----
.458	25.8	-----	-----	-----	-----	-----	-----
.298	26.0	0.0252	-----	-----	-----	-----	-----
.258	25.1	-----	-----	-----	-----	-----	-----
.243	25.1	0.0028	0.002	0.0021	0.032	-----	-----
.238	25.1	-----	-----	-----	-----	-----	-----
.231	25.3	-----	-----	-----	-----	-----	-----
.227	26.6	-----	-----	-----	-----	-----	-----
.220	27.1	-----	-----	-----	-----	-----	-----
.185	23.2	-----	-----	-----	-----	-----	-----
.162	22.0	-----	-----	-----	-----	-----	-----
.144	21.3	-----	-----	-----	-----	-----	-----
.133	20.9	-----	-----	-----	-----	-----	-----
.124	20.7	-----	-----	-----	-----	-----	-----
.115	20.5	-----	-----	-----	-----	-----	-----
.109	20.3	-----	-----	-----	-----	-----	-----
.102	20.2	-----	-----	-----	-----	-----	-----
.098	20.2	-----	-----	-----	-----	-----	-----
.095	20.1	-----	-----	-----	-----	-----	-----
.091	20.1	-----	-----	-----	-----	-----	-----
IPENE PPM IS-1	N-C4 PPM DMS-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1				
.0013	0.0002	0.0044	0.0005				

2

ITC-736
PROPENE-NOX
1984 FEBRUARY 3

NEW BAG #102 INSTALLED
0645: BEGIN WET FLUSH.
0814: STOP FLUSH. 50% R.H. AT 80 F.
0842: INJECTIONS: 3.2 ML NO1
 0.64 ML NO2
 3.2 ML PROPENE.
1658: DUMP AND FLUSH FOR 1 HOUR.

NOTE: APPLE DUMPED APPROXIMATELY AT 1615.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.363	PPM
NO2-UNC	C-1600B	0.094	PPM
PROPENE	DMS-1	0.510	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RH-121; POROPAK-N GC; FID
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID

ITC-736
PROPENE-NOX
1984 FEBRUARY 3

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	PROPENE PPM DMS-1	PAN PPM ECD-1	HC F (
1 816	-44	-----	-----	-----	-----	0.002	0.000	--
1 830	-30	0.002	0.000	0.002	0.007	-----	-----	--
1 845	-15	0.002	0.370	0.090	0.460	-----	-----	--
1 846	-14	-----	-----	-----	-----	0.483	-----	--
1 855	-5	-----	-----	-----	-----	-----	-----	(
1 900	0	0.002	0.363	0.094	0.456	0.510	0.000	--
1 915	15	0.002	0.337	0.115	0.451	-----	-----	--
1 930	30	0.002	0.309	0.136	0.445	-----	-----	--
1 945	45	0.002	0.284	0.155	0.438	-----	-----	--
1 1000	60	0.002	0.259	0.174	0.433	0.423	0.000	(
1 1015	75	0.002	0.235	0.190	0.424	-----	-----	--
1 1030	90	0.002	0.211	0.209	0.420	-----	-----	--
1 1045	105	0.002	0.188	0.227	0.415	-----	-----	--
1 1100	120	0.003	0.166	0.243	0.409	0.379	0.002	(
1 1115	135	0.006	0.146	0.256	0.401	-----	-----	--
1 1130	150	0.009	0.125	0.272	0.397	-----	-----	--
1 1145	165	0.015	0.106	0.286	0.392	-----	-----	--
1 1200	180	0.019	0.089	0.294	0.383	0.300	0.004	(
1 1215	195	0.027	0.075	0.303	0.377	-----	-----	--
1 1230	210	0.034	0.062	0.310	0.371	-----	-----	--
1 1245	225	0.046	0.049	0.317	0.365	-----	-----	--
1 1300	240	0.056	0.040	0.318	0.357	0.249	0.011	(
1 1315	255	0.070	0.031	0.320	0.352	-----	-----	--
1 1330	270	0.086	0.026	0.318	0.343	-----	-----	--
1 1345	285	0.103	0.020	0.314	0.334	-----	-----	--
1 1400	300	0.121	0.016	0.312	0.328	0.180	0.024	--
1 1415	315	0.140	0.013	0.309	0.322	-----	-----	--
1 1430	330	0.160	0.011	0.303	0.313	-----	-----	--
1 1445	345	0.179	0.009	0.298	0.306	-----	-----	--
1 1450	350	-----	-----	-----	-----	-----	-----	(
1 1500	360	0.197	0.007	0.290	0.297	0.116	0.043	--
1 1515	375	0.217	0.006	0.286	0.291	-----	-----	--
1 1530	390	0.236	0.005	0.277	0.282	-----	-----	--
1 1545	405	0.255	0.004	0.272	0.276	-----	-----	--
1 1600	420	0.271	0.003	0.265	0.268	-----	-----	--
1 1615	435	0.283	0.002	0.258	0.260	-----	-----	--

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PAGE 2

-UNC PM 600B	PROPENE PPM DMS-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	T DEG C ANA-TEMP	METHANE PPM PN-1	ETHANE PPM PN-1
-----	0.002	0.000	-----	0.0004	-----	1.43	0.007
.007	-----	-----	-----	-----	-----	-----	-----
.460	-----	-----	-----	-----	-----	-----	-----
-----	0.483	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.020	-----	-----	-----	-----
.456	0.510	0.000	-----	0.0004	-----	-----	-----
.451	-----	-----	-----	-----	27.1	-----	-----
.445	-----	-----	-----	-----	26.5	-----	-----
.438	-----	-----	-----	-----	26.3	-----	-----
.433	0.423	0.000	0.042	0.0231	26.7	-----	-----
.424	-----	-----	-----	-----	26.6	-----	-----
.420	-----	-----	-----	-----	26.8	-----	-----
.415	-----	-----	-----	-----	26.9	-----	-----
.409	0.379	0.002	0.067	0.0404	27.1	-----	-----
.401	-----	-----	-----	-----	27.1	-----	-----
.397	-----	-----	-----	-----	27.0	-----	-----
.392	-----	-----	-----	-----	26.9	-----	-----
.383	0.300	0.004	0.020	0.0608	27.0	-----	-----
.377	-----	-----	-----	-----	27.0	-----	-----
.371	-----	-----	-----	-----	27.1	-----	-----
.365	-----	-----	-----	-----	27.1	-----	-----
.357	0.249	0.011	0.079	0.0651	27.1	-----	-----
.352	-----	-----	-----	-----	27.1	-----	-----
.343	-----	-----	-----	-----	27.2	-----	-----
.334	-----	-----	-----	-----	27.3	-----	-----
.328	0.180	0.024	-----	0.0763	27.3	-----	-----
.322	-----	-----	-----	-----	27.2	-----	-----
.313	-----	-----	-----	-----	27.2	-----	-----
.306	-----	-----	-----	-----	27.2	-----	-----
-----	-----	-----	0.146	-----	-----	-----	-----
.297	0.116	0.043	-----	0.1044	26.9	-----	-----
.291	-----	-----	-----	-----	26.6	-----	-----
.282	-----	-----	-----	-----	26.4	-----	-----
.276	-----	-----	-----	-----	26.4	-----	-----
.268	-----	-----	-----	-----	26.3	-----	-----
.260	-----	-----	-----	-----	26.2	-----	-----

ITC-736
PROPENE-NOX
1984 FEBRUARY 3

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 816	-44	0.004	0.0002	0.0005	0.0047	0.0057	0.0058

----- NO DATA TAKEN

ITC-737
NOX-AIR IRRADIATION
1984 FEBUARY 6

0645: BEGIN WET FLUSH.
0814: 65 F WET BULB, 75 F DRY BULB.
R.H. ~50% AT 80 F.
0816: STOP FLUSH.
0850: INJECTIONS: 3.16 ML NO1
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE.
0915: 70% LIGHTS.
1115: DUMP BAG.
1445-1800: FLUSH BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.2	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.389	PPM
NO2-UNC	C-1600B	0.100	PPM
PROPENE	DMS-1	0.0111	PPM
N-C4	DMS-1	0.0102	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-737
NOX-AIR IRRADIATION
1984 FEBRUARY 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	PROPENE PPH DMS-1	N-C4 PPH DMS-1	LNC4/ DMS-
1 818	-57	-----	-----	-----	-----	0.0015	0.0004	-----
1 845	-30	0.002	0.000	0.003	0.001	-----	-----	-----
1 854	-21	-----	-----	-----	-----	0.0111	0.0100	-0.00
1 900	-15	0.002	0.396	0.101	0.496	-----	-----	-----
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.002	0.389	0.100	0.489	0.0111	0.0102	-0.00
1 930	15	0.002	0.384	0.101	0.485	0.0109	0.0101	-0.00
1 945	30	0.002	0.379	0.100	0.479	0.0104	0.0100	0.00
1 1000	45	0.002	0.375	0.101	0.476	0.0104	0.0102	0.00
1 1015	60	0.002	0.372	0.099	0.471	0.0100	0.0102	0.00
1 1030	75	0.002	0.367	0.102	0.468	0.0094	0.0096	0.00
1 1045	90	0.002	0.361	0.104	0.465	0.0086A	0.0093	0.10
1 1100	105	0.002	0.357	0.106	0.462	0.0095	0.0101	0.10
1 1105	110	-----	-----	-----	-----	-----	-----	-----
1 1115	120	0.002	0.357	0.100	0.457	0.0092	0.0100	0.10

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	ACETYLEN PPH DMS-1	ACETYL PPH PN-
1 818	-57	1.61	0.0058	0.0047	0.0007	0.0044	0.0049	0.00

----- NO DATA TAKEN

NOTES

A CHART STOPPED ON THIS PEAK - MV MEASUREMENT IS AN ESTIMATE.

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JNC 1 00B	PROPENE PPM DMS-1	N-C4 PPM DMS-1	LNC4/C3= DMS-1	T DEG C ANA-TEMP	HCHO PPM CA	ACETALD PPM 10'C-600	PAN PPM ECD-1
---	0.0015	0.0004	-----	-----	-----	0.0016	0.000
001	---	---	---	---	---	---	---
---	0.0111	0.0100	-0.0296	---	---	---	---
496	---	---	---	---	0.004	---	---
---	---	---	---	---	---	---	---
489	0.0111	0.0102	-0.0171	---	---	---	---
485	0.0109	0.0101	-0.0062	26.1	---	---	---
479	0.0104	0.0100	0.0216	26.8	---	---	---
476	0.0104	0.0102	0.0468	26.4	---	---	---
471	0.0100	0.0102	0.0834	26.0	---	---	---
468	0.0094	0.0096	0.0927	25.9	---	---	---
465	0.0086A	0.0093	0.1494	26.2	---	---	---
462	0.0095	0.0101	0.1286	26.2	---	---	---
---	---	---	---	---	0.000	---	---
457	0.0092	0.0100	0.1556	26.3	---	---	---

24 PM 3-1	ETHENE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
0007	0.0044	0.0049	0.0052

IS AN ESTIMATE.

2

ITC-739
TETRALIN-NOX
1984 FEBUARY 7

0645: BEGIN WET FLUSH.
0821: STOP FLUSH. 67 F WET BULB, 79 F DRY BULB.
0850: INJECTIONS: 3.16 ML NO1
 0.64 ML NO2
 17.7 MICROLITERS TETRALIN.
0906: SUPPLEMENTS: 0.4 ML NO1
 0.064 ML NO2.
1015: 70% LIGHTS.
1611: DUMP BAG. FLUSH UNTIL 1800.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.8	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.404	PPM
NO2-UNC	C-1600B	0.113	PPM
TETRALIN	DB-5C-1	0.237	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2100	PN-1	RH-1211 POROPAK-N GC FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC ECD
2850	DB-5C-1	RH-1211 30 M DB-5 QUARTZ CAP, GC FID
2200	DHS-1	RH-1211 DINETHYLSULFOLANE GC FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-739
TETRALIN-NOX
1984 FEBUARY 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	TETRALIN PPH DB-5C-1	PAN PPH ECD-
1 820	-115	-----	-----	-----	-----	-----	-----	0.0
1 845	-90	0.002	0.000	0.002	0.000	-----	-----	-----
1 900	-75	0.005	0.346	0.100	0.446	-----	-----	-----
1 908	-67	-----	-----	-----	-----	-----	0.214	-----
1 928	-47	-----	-----	-----	-----	-----	-----	-----
1 1000	-15	0.002	0.400	0.114	0.514	-----	-----	-----
1 1015	0	0.002	0.404	0.113	0.515	-----	0.237	0.0
1 1030	15	0.002	0.388	0.124	0.511	26.2	-----	-----
1 1045	30	0.002	0.375	0.131	0.505	26.2	-----	-----
1 1100	45	0.002	0.367	0.137	0.503	26.2	-----	-----
1 1115	60	0.002	0.358	0.144	0.501	26.6	0.208	0.0
1 1130	75	0.002	0.348	0.152	0.499	26.6	-----	-----
1 1145	90	0.002	0.342	0.155	0.496	26.6	-----	-----
1 1200	105	0.002	0.335	0.161	0.496	26.8	-----	-----
1 1215	120	0.001	0.327	0.166	0.492	26.8	0.147	0.0
1 1230	135	0.002	0.319	0.172	0.491	26.8	-----	-----
1 1245	150	0.002	0.313	0.176	0.489	26.8	-----	-----
1 1300	165	0.002	0.305	0.181	0.486	26.9	-----	-----
1 1315	180	0.002	0.299	0.184	0.483	27.0	0.140	0.0
1 1330	195	0.002	0.293	0.189	0.482	27.0	-----	-----
1 1345	210	0.002	0.285	0.195	0.480	26.9	-----	-----
1 1400	225	0.002	0.281	0.199	0.480	27.0	-----	-----
1 1415	240	0.002	0.275	0.203	0.478	26.9	0.141	0.0
1 1430	255	0.001	0.270	0.203	0.473	27.0	-----	-----
1 1445	270	0.002	0.265	0.206	0.471	26.9	-----	-----
1 1500	285	0.002	0.260	0.211	0.470	27.0	-----	-----
1 1515	300	0.001	0.253	0.214	0.467	27.1	0.174	0.0
1 1530	315	0.002	0.248	0.218	0.465	27.2	-----	-----
1 1545	330	0.002	0.240	0.222	0.462	27.3	-----	-----
1 1600	345	0.002	0.237	0.225	0.461	27.3	-----	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----
1 1615	360	0.002	0.232	0.226	0.457	27.2	0.146	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHANE PPH PN-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1	PROPENE PPH DMS-1	N-C4 PPH DMS-1	PROPANE PPH DMS-1	I-C PPH DMS
1 820	-115	0.0040	0.0059	0.0054	0.0015	0.0003	0.0038	0.0

----- NO DATA TAKEN

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NC OR	T DEG C ANA-TEMP	TETRALIN PPM DB-5C-1	PAN PPM ECD-1	ACETALD PPM 10'C-600	HCHO PPM CA	METHANE PPM PN-1	ETHENE PPM PN-1
---	-----	-----	0.000	0.0008	-----	1.54	0.0031
00	-----	-----	-----	-----	-----	-----	-----
46	-----	-----	-----	-----	-----	-----	-----
---	-----	0.214	-----	-----	0.000	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
514	-----	-----	-----	-----	-----	-----	-----
515	-----	0.237	0.000	0.0014	-----	-----	-----
511	26.2	-----	-----	-----	-----	-----	-----
505	26.2	-----	-----	-----	-----	-----	-----
503	26.2	-----	-----	-----	-----	-----	-----
501	26.6	0.208	0.000	0.0012	0.000	-----	-----
499	26.6	-----	-----	-----	-----	-----	-----
496	26.6	-----	-----	-----	-----	-----	-----
496	26.8	-----	-----	-----	-----	-----	-----
492	26.8	0.147	0.000	0.0009	0.006	-----	-----
491	26.8	-----	-----	-----	-----	-----	-----
489	26.8	-----	-----	-----	-----	-----	-----
486	26.9	-----	-----	-----	-----	-----	-----
483	27.0	0.140	0.000	0.0015	0.004	-----	-----
482	27.0	-----	-----	-----	-----	-----	-----
480	26.9	-----	-----	-----	-----	-----	-----
480	27.0	-----	-----	-----	-----	-----	-----
478	26.9	0.141	0.000	0.0019	0.002	-----	-----
473	27.0	-----	-----	-----	-----	-----	-----
471	26.9	-----	-----	-----	-----	-----	-----
470	27.0	-----	-----	-----	-----	-----	-----
467	27.1	0.174	0.000	0.0023	0.000	-----	-----
465	27.2	-----	-----	-----	-----	-----	-----
462	27.3	-----	-----	-----	-----	-----	-----
461	27.3	-----	-----	-----	0.000	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
457	27.2	0.146	0.000	0.0018	-----	-----	-----

ENE H -1	N-C4 PPM DMS-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1
015	0.0003	0.0038	0.0004

ITC-740
NOX-AIR IRRADIATION
1984 FEB 8

0645: BEGIN WET FLUSH.
0814: FLUSH OFF. 67 F WET BULB, 78 F DRY BULB.
R.H. ~52% AT 80 F.
0847: INJECTIONS: 3.16 ML NO;
0.64 ML NO₂;
0.064 ML PROPENE;
0.064 ML N-BUTANE.
0855: SUPPLEMENT: 0.4 ML NO.
0915: 70% LIGHTS.
1117: DUMP BAG.
1500-1700: FLUSH BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.0	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.403	PPM
NO ₂ -UNC	C-1600B	0.111	PPM
PROPENE	DMS-1	0.0112	PPM
N-C4	DMS-1	0.0102	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-740
NOX-AIR IRRADIATION
1984 FEB 8

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-1212	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	LNC4/C3= DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1
1 818	-57	-----	-----	-----	-----	-----	0.0015	0.0000
1 829	-46	0.002	0.000	0.002	0.000	-----	-----	-----
1 858	-17	-----	-----	-----	-----	0.0038	0.0105	0.0000
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.002	0.403	0.111	0.513	-0.0204	0.0112	0.0100
1 930	15	0.002	0.400	0.112	0.511	0.0359	0.0107	0.0100
1 945	30	0.002	0.399	0.112	0.510	0.0499	0.0103	0.0100
1 1000	45	0.002	0.395	0.111	0.505	0.0783	0.0099	0.0100
1 1015	60	0.002	0.394	0.112	0.505	0.0883	0.0098	0.0100
1 1030	75	0.002	0.392	0.111	0.502	0.1193	0.0091	0.0000
1 1045	90	0.002	0.386	0.115	0.501	0.1425	0.0093	0.0100
1 1100	105	0.002	0.388	0.115	0.502	0.1552	0.0091	0.0100
1 1105	110	-----	-----	-----	-----	-----	-----	-----
1 1115	120	0.002	0.385	0.116	0.501	0.1763	0.0090	0.0100

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPM PN-1	ETHENE PPM PN-1	ETHANE PPM PN-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	T2-C4= PPM DMS-1	PROPA PPM DMS-1
1 818	-57	1.74	0.0080	0.0040	0.0095	0.0091	0.0003	0.0000

----- NO DATA TAKEN

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UNC PM	LNC4/C3= DMS-1	PROPENE PPM DMS-1	N-C4 PPM DMS-1	T DEG C ANA-TEMP	ACETALD PPM 10'C-600	HCHO PPM CA	PAN PPM ECD-1
6008		0.0015	0.0002	-----	0.0006	-----	0.000
.000	0.0038	0.0105	0.0099	-----	-----	0.000	-----
.513	-0.0206	0.0112	0.0102	26.9	-----	-----	-----
.511	0.0359	0.0107	0.0103	26.3	-----	-----	-----
.510	0.0499	0.0103	0.0101	27.1	-----	-----	-----
.505	0.0783	0.0099	0.0100	27.2	-----	-----	-----
.505	0.0883	0.0098	0.0100	27.1	-----	-----	-----
.502	0.1193	0.0091	0.0096	27.5	-----	-----	-----
.501	0.1425	0.0093	0.0100	27.2	-----	-----	-----
.502	0.1552	0.0091	0.0100	-----	-----	0.000	-----
.501	0.1763	0.0090	0.0100	26.9	-----	-----	-----
TYLEN PPM MS-1	ACETYLEN PPM PN-1	T2-C4= PPM DMS-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	I-C4= PPM DMS-1		
.0095	0.0091	0.0003	0.0037	0.0004	0.0003		

ITC-742
MESITYLENE-NOX
1984 FEB 9

0645: BEGIN WET FLUSH.
0823: STOP FLUSH. 67.5 F WET BULB, 80 F DRY BULB.
R.H. ~52% AT 80 F.
0850: INJECTIONS: 3.56 ML NO1
0.64 ML NO2
18.1 MICROLITERS MESITYLENE.
0945: 70% LIGHTS.
1420: DUMP BAG. FLUSH.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.4	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.352	PPM
NO2-UNC	C-1600B	0.129	PPM
135-TMB	10'C-600	0.5166	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-1211 POROPAK-N GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
1212	D-1212	DASIBI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-742
METHYLENE-NOX
1984 FEB 9

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	135-TMB PPH 10'C-600	PA PP ECD
1 822	-83	-----	-----	-----	-----	-----	-----	0.
1 845	-60	0.002	0.000	0.002	0.000	-----	-----	---
1 900	-45	0.002	0.363	0.123	0.488	-----	-----	---
1 905	-40	-----	-----	-----	-----	-----	0.5015	---
1 920	-25	-----	-----	-----	-----	-----	-----	---
1 930	-15	0.002	0.355	0.127	0.481	-----	-----	---
1 945	0	0.002	0.352	0.129	0.479	-----	0.5166	0.
1 1000	15	0.004	0.252	0.214	0.466	27.0	-----	---
1 1015	30	0.075	0.045	0.377	0.421	27.4	0.3185	---
1 1030	45	0.250	0.006	0.364	0.370	27.7	-----	---
1 1045	60	0.402	0.001	0.336	0.337	27.9	0.1738	---
1 1100	75	0.523	0.000	0.308	0.307	27.0	-----	0.
1 1115	90	0.608	0.000	0.293	0.291	27.2	0.0963	---
1 1130	105	0.674	0.000	0.279	0.277	27.4	-----	---
1 1145	120	0.718	0.000	0.275	0.272	27.4	0.0585	0.
1 1200	135	0.743	0.000	0.269	0.266	27.3	-----	---
1 1215	150	0.759	0.000	0.267	0.265	27.4	0.0399	---
1 1230	165	0.761	0.000	0.267	0.265	27.3	-----	---
1 1245	180	0.763	0.000	0.266	0.264	27.4	0.0282	0.
1 1300	195	0.761	0.000	0.265	0.262	27.5	-----	---
1 1315	210	0.764	0.000	0.264	0.262	27.4	-----	---
1 1330	225	0.766	0.000	0.265	0.263	27.5	-----	---
1 1345	240	0.767	0.000	0.261	0.258	27.5	0.0152	0.
1 1400	255	0.770	0.000	0.260	0.257	27.8	-----	---
1 1410	265	-----	-----	-----	-----	-----	-----	---
1 1415	270	0.773	0.000	0.260	0.258	27.8	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROI PI DMS
1 822	-83	1.59	0.0063	0.0035	0.0003	0.0004	0.0051	0.

----- NO DATA TAKEN

NOTES

A 30 ML SAMPLE IN 70 ML N2
B 10 ML SAMPLE IN 90 ML N2

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UNC M	T DEG C	135-TMB PPM	PAN PPM	HCHO PPM	ACETALD PPM	ACETONE PPM	MEK PPM
00B	ANA-TEMP	10'C-600	ECD-1	CA	10'C-600	10'C-600	10'C-600
---	---	---	0.000	---	0.0006	---	---
000	---	---	---	---	---	---	---
488	---	---	---	---	---	---	---
---	---	0.5015	---	---	---	---	---
---	---	---	---	0.000	---	---	---
481	---	---	---	---	---	---	---
479	---	0.5166	0.000	---	---	---	---
466	27.0	---	---	---	---	---	---
421	27.4	0.3185	---	---	---	---	---
370	27.7	---	---	---	---	---	---
337	27.9	0.1738	---	0.020	---	---	---
307	27.0	---	0.220A	---	---	---	---
291	27.2	0.0963	---	---	0.0055	0.0024	0.0041
277	27.4	---	---	---	---	---	---
272	27.4	0.0585	0.390B	0.055	0.0075	0.0030	0.0067
266	27.3	---	---	---	---	---	---
265	27.4	0.0399	---	---	0.0079	0.0025	0.0070
265	27.3	---	---	---	---	---	---
264	27.4	0.0282	0.470B	0.067	0.0105	0.0032	0.0082
262	27.5	---	---	---	---	---	---
262	27.4	---	---	---	---	---	---
263	27.5	---	---	---	---	---	---
258	27.5	0.0152	0.460B	---	0.0099	0.0025	0.0074
257	27.8	---	---	---	---	---	---
---	---	---	---	0.127	---	---	---
0.258	27.8	---	---	---	---	---	---

I-C4 PPM	I-C4 PPM	ETHENE PPM	PROPENE PPM	I-C4=	ACETYLEN	ACETYLEN
18-1	DMS-1	PN-1	DMS-1	PPM	PPM	PPM
				DMS-1	PN-1	DMS-1
0.0003	0.0004	0.0051	0.0013	0.0002	0.0058	0.0029

ITC-743
FURAN - NOX
1984 FEB 10

0645: WET FLUSH ON.
0850: INJECTIONS: 3.56 ML NO;
0.64 ML NO2;
9.3 MICROLITERS FURAN.

0915: 70% LIGHTS.
1515: RUN OVER.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.0	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.381	PPM
NO2-UNC	C-1600B	0.114	PPM
FURAN	C-20M	0.3670	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
1212	D-1212	DASIBI 1212 OZONE MONITOR
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR, SN1223790
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC FID
2100	PN-1	RM-1211 POROPAK-N GC FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC ECD
1400	C-20M	RM-1211 C-20M/DC-703 GC FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-400 GC FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-743
FURAN - NOX
1984 FEB 10

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	FURAN PPH C-20H	PI PI ECI
1 829	-46	-----	-----	-----	-----	-----	0.0000	0
1 900	-15	0.002	0.384	0.116	0.499	-----	-----	---
1 908	-7	-----	-----	-----	-----	-----	0.3629	---
1 915	0	0.002	0.381	0.114	0.494	-----	0.3670	0
1 920	5	-----	-----	-----	-----	-----	-----	---
1 930	15	0.002	0.350	0.143	0.492	25.8	-----	---
1 945	30	0.005	0.241	0.234	0.473	25.8	-----	---
1 1000	45	0.050	0.061	0.354	0.414	26.2	-----	---
1 1015	60	0.198	0.009	0.311	0.319	27.1	0.0643	0
1 1030	75	0.326	0.001	0.240	0.241	27.3	-----	---
1 1045	90	0.403	0.000	0.195	0.195	27.0	-----	---
1 1100	105	0.444	0.000	0.172	0.170	26.9	-----	---
1 1115	120	0.472	0.000	0.159	0.157	26.9	0.0000	0
1 1130	135	0.490	0.000	0.148	0.146	27.0	-----	---
1 1145	150	0.504	0.000	0.139	0.137	27.0	-----	---
1 1200	165	0.516	0.000	0.132	0.131	27.0	-----	---
1 1215	180	0.525	0.000	0.126	0.124	27.0	-----A	0
1 1230	195	0.532	0.000	0.119	0.117	27.0	-----	---
1 1245	210	0.541	0.000	0.115	0.112	27.0	-----	---
1 1300	225	0.548	0.000	0.111	0.107	27.1	-----	---
1 1315	240	0.555	0.000	0.105	0.102	27.3	-----	---
1 1330	255	0.563	0.000	0.101	0.097	27.4	-----	---
1 1345	270	0.567	0.000	0.095	0.093	27.5	-----	---
1 1400	285	0.572	0.000	0.091	0.089	27.5	-----	---
1 1415	300	0.577	0.000	0.089	0.086	27.2	-----	---
1 1430	315	0.582	0.000	0.085	0.082	27.2	-----	---
1 1445	330	0.598	0.000	0.081	0.078	27.2	-----	---
1 1500	345	0.583	0.000	0.077	0.075	27.2	-----	---
1 1505	350	-----	-----	-----	-----	-----	-----	---
1 1515	360	0.584	0.000	0.076	0.072	27.2	-----	---
1 1530	375	0.587	0.000	0.071	0.068	27.3	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH DHS-1	ETHANE PPH PN-1	PROPANE PPH DHS-1	N-C4 PPH DHS-1	I-C4 PPH DHS-1	ETHENE PPH PN-1	PRO P DH
1 829	-46	1.47	0.0073	0.0037	0.0002	0.0004	0.0054	0.
1 908	-7	-----A	-----A	-----	-----	-----	-----A	---

----- NO DATA TAKEN

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PAGE 2

X-UNC PPH 1600B	T DEG C ANA-TEMP	FURAN PPH C-20M	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	RT=2.00 RAW DATA ECD-1
-----	-----	0.0000	0.000	-----	0.0004	0.0000	0.0000
0.499	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.3629	-----	-----	0.0000	0.0000	-----
0.494	-----	0.3670	0.000	-----	0.0000	0.0000	0.0000
-----	-----	-----	-----	0.000	-----	-----	-----
0.492	25.8	-----	-----	-----	-----	-----	-----
0.473	25.8	-----	-----	-----	-----	-----	-----
0.414	26.2	-----	-----	-----	-----	-----	-----
0.319	27.1	0.0643	0.002	0.024	0.0014	0.0000	0.5280
0.241	27.3	-----	-----	-----	-----	-----	-----
0.195	27.0	-----	-----	-----	-----	-----	-----
0.170	26.9	-----	-----	-----	-----	-----	-----
0.157	26.9	0.0000	0.004	-----	0.0018	0.0012	1.328
0.146	27.0	-----	-----	-----	-----	-----	-----
0.137	27.0	-----	-----	-----	-----	-----	-----
0.131	27.0	-----	-----	-----	-----	-----	-----
0.124	27.0	-----A	0.005	0.047	0.0019	0.0014	1.120
0.117	27.0	-----	-----	-----	-----	-----	-----
0.112	27.0	-----	-----	-----	-----	-----	-----
0.107	27.1	-----	-----	-----	-----	-----	-----
0.102	27.3	-----	-----	0.020	-----	-----	-----
0.097	27.4	-----	-----	-----	-----	-----	-----
0.093	27.5	-----	-----	-----	-----	-----	-----
0.089	27.5	-----	-----	-----	-----	-----	-----
0.086	27.2	-----	-----	0.018	-----	-----	-----
0.082	27.2	-----	-----	-----	-----	-----	-----
0.078	27.2	-----	-----	-----	-----	-----	-----
0.075	27.2	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.020	-----	-----	-----
0.072	27.2	-----	-----	-----	-----	-----	-----
0.068	27.3	-----	-----	-----	-----	-----	-----

-C4 PPH MS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
0.0002	0.0004	0.0054	0.0015	0.0052	0.0057
-----	-----	-----A	-----	-----A	-----

ITC-743
FURAN - NOX
1984 FEB 10

NOTES

A STOPPED SAMPLING ON THIS INSTRUMENT.

ITC-744
THIOPHENE-NOX
1984 FEBUARY 13

0645: BEGIN WET FLUSH.
0830: STOP FLUSH. 78 F DRY BULB, 66 F WET BULB.
0857: INJECTIONS: 3.56 ML NO1
 0.64 ML NO2;
 41.1 MICROLITERS THIOPHENE.
0930: 70X LIGHTS.
1400: DUMP BAG. FLUSH BAG UNTIL 1630.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.5	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.427	PPH
NO2-UNC	C-1600B	0.094	PPH
THIOPHEN	C-20M	1.637	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5X CARBOWAX-400 GC1 ECD
1400	C-20M	RH-1211 C-20M/DC-703 GC1 FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RH-1211 10' 10X CARBOWAX-600 GC1 FID
1212	D-1212	DASIDI 1212 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-744
THIOPHENE-NOX
1984 FEBUARY 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-1212	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	THIOPHEN PPH C-20M	PAN PPH ECD-
1 829	-61	-----	-----	-----	-----	-----	0.000	0.0
1 845	-45	0.002	0.000	0.003	0.001	-----	-----	-----
1 906	-24	-----	-----	-----	-----	-----	1.623	-----
1 915	-15	0.002	0.433	0.093	0.527	-----	-----	-----
1 920	-10	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.002	0.427	0.094	0.521	-----	1.637	0.0
1 945	15	0.002	0.397	0.117	0.514	26.0	-----	-----
1 1000	30	0.014	0.337	0.168	0.505	26.4	-----	-----
1 1015	45	0.043	0.244	0.240	0.484	26.7	-----	-----
1 1030	60	0.095	0.148	0.305	0.453	26.5	1.419	0.0
1 1045	75	0.158	0.083	0.328	0.411	26.4	-----	-----
1 1100	90	0.222	0.048	0.311	0.359	26.5	-----	-----
1 1115	105	0.280	0.032	0.277	0.309	26.5	-----	-----
1 1130	120	0.331	0.024	0.238	0.262	26.6	1.137	0.0
1 1145	135	0.370	0.018	0.199	0.217	26.6	-----	-----
1 1200	150	0.382	0.015	0.161	0.176	26.6	-----	-----
1 1215	165	0.449	0.012	0.124	0.137	26.7	-----	-----
1 1230	180	0.452	0.009	0.092	0.102	26.5	0.906	0.0
1 1245	195	0.479	0.008	0.064	0.072	26.6	-----	-----
1 1300	210	0.454	0.008	0.045	0.053	26.5	-----	-----
1 1315	225	0.428	0.007	0.034	0.042	26.6	-----	-----
1 1330	240	0.440	0.007	0.029	0.036	26.6	0.725	0.0
1 1345	255	0.425	0.006	0.025	0.032	26.7	-----	-----
1 1350	260	-----	-----	-----	-----	-----	-----	-----
1 1400	270	0.403	0.006	0.024	0.030	26.6	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DHS-1	N-C4 PPH DHS-1	I-C4 PPH DHS-1	ETHENE PPH PN-1	PROPE PPH DHS-
1 829	-61	1.72	0.005	0.004	0.0002	0.0004	0.0034	0.0
1 906	-24	-----A	-----A	-----	-----	-----	-----A	-----

----- NO DATA TAKEN

NOTES

- A NOT MEASURED - NO SAMPLES TAKEN AFTER BACKGROUND ON PN-1, AND DHS-1.
- B NOT MEASURED.
- C UNDER ANOTHER PEAK.

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INC I JOB	T DEG C ANA-TEMP	THIOPHEN PPM C-20M	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	RT=2.00 RAW DATA ECD-1
---	-----	0.000	0.000	-----	0.0007	-----	-----
001	-----	-----	-----	-----	-----	-----	-----
---	-----	1.623	-----B	-----	-----	-----	-----
527	-----	-----	-----	0.022	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
521	-----	1.637	0.000	-----	0.0004	0.0005	-----
514	26.0	-----	-----	-----	-----	-----	-----
505	26.4	-----	-----	-----	-----	-----	-----
484	26.7	-----	-----	-----	-----	-----	-----
453	26.5	1.419	0.000	0.028	0.0016	0.0012	-----
411	26.4	-----	-----	-----	-----	-----	-----
359	26.5	-----	-----	-----	-----	-----	-----
309	26.5	-----	-----	-----	-----	-----	-----
262	26.6	1.137	0.003	0.083	0.0034	0.0030	0.2240
217	26.6	-----	-----	-----	-----	-----	-----
176	26.6	-----	-----	-----	-----	-----	-----
137	26.7	-----	-----	-----	-----	-----	-----
102	26.5	0.906	0.004	0.042	0.0035	-----C	0.5920
072	26.6	-----	-----	-----	-----	-----	-----
053	26.5	-----	-----	-----	-----	-----	-----
042	26.6	-----	-----	-----	-----	-----	-----
036	26.6	0.725	0.006	-----	0.0049	-----C	0.7840
032	26.7	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	0.117	-----	-----	-----
030	26.6	-----	-----	-----	-----	-----	-----

4 M -1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
002	0.0004	0.0034	0.0015	0.0052	0.0046
---	-----	-----A	-----	-----	-----A

ROUND ON PN-1, AND DMS-1.

ITC-745
NOX-AIR IRRADIATION
1984 FEBUARY 14

0645: BEGIN FLUSH
0834: STOP FLUSH

78 F DRY BULB
65 F WET BULB
0902: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0930: 70 % LIGHTS
1131: DUMP BAG
1500-1630: FLUSH BAG.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.4	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.413	PPM
NO2-UNC	C-1600B	0.108	PPM
N-C4	DMS-1	0.0099	PPM
PROPENE	DMS-1	0.0109	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RN-1211 DIMETHYLSULFOLANE GC; FID
2100	PN-1	RN-1211 POROPAK-N GC; FID
2000	ECD-1	RN-1211 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2920	10'C-400	RN-1211 10' 10% CARBOWAX-400 GC; FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-745
NOX-AIR IRRADIATION
1984 FEBUARY 14

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	LNC4/C3= DMS-1	T DEG C ANA-TEMP	N-C4 PPH DMS-1
1 834	-56	-----	-----	-----	-----	-----	-----	0.000
1 900	-30	0.000	0.000	0.002	0.000	-----	-----	-----
1 905	-25	-----	-----	-----	-----	-0.0545	-----	0.010
1 910	-20	-----	-----	-----	-----	-----	-----	-----
1 915	-15	0.000	0.415	0.107	0.522	-----	-----	-----
1 930	0	0.009	0.413	0.108	0.521	-0.0262	-----	0.009
1 945	15	0.011	0.413	0.109	0.521	-0.0293	26.0	0.010
1 1000	30	0.012	0.410	0.108	0.517	0.0013	26.3	0.010
1 1015	45	0.012	0.406	0.111	0.517	0.0387	26.7	0.009
1 1030	60	0.012	0.405	0.111	0.516	0.0626	26.6	0.010
1 1045	75	0.014	0.407	0.121	0.527	0.0861	26.4	0.009
1 1100	90	0.013	0.404	0.107	0.511	0.1133	26.3	0.010
1 1115	105	0.017	0.403	0.108	0.510	0.1690	26.4	0.009
1 1120	110	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.014	0.397	0.111	0.507	0.1929	26.5	0.010

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	ACETYLEN PPH PN-1	ACETYL PPH DMS-
1 834	-56	1.47	0.006	0.004	0.0004	0.0052	0.0043	0.00

----- NO DATA TAKEN

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-UNC PM 600B	LNC4/C3= DMS-1	T DEG C ANA-TEMP	N-C4 PPM DMS-1	PROPENE PPM DMS-1	HCHO PPM CA	ACETALD PPM 10'C-600	PAN PPM ECD-1
-----	-----	-----	0.0002	0.0016	-----	0.0003	0.000
0.000	-----	-----	-----	-----	-----	-----	-----
-----	-0.0545	-----	0.0101	0.0114	-----	-----	-----
-----	-----	-----	-----	-----	0.002	-----	-----
0.522	-----	-----	-----	-----	-----	-----	-----
0.521	-0.0262	-----	0.0099	0.0109	-----	-----	-----
0.521	-0.0293	26.0	0.0101	0.0112	-----	-----	-----
0.517	0.0013	26.3	0.0100	0.0106	-----	-----	-----
0.517	0.0387	26.7	0.0099	0.0102	-----	-----	-----
0.516	0.0626	26.6	0.0101	0.0102	-----	-----	-----
0.527	0.0861	26.4	0.0099	0.0097	-----	-----	-----
0.511	0.1133	26.3	0.0101	0.0096	-----	-----	-----
0.510	0.1690	26.4	0.0098	0.0088	-----	-----	-----
-----	-----	-----	-----	-----	0.004	-----	-----
0.507	0.1929	26.5	0.0100	0.0088	-----	-----	-----

-C4 PPM MS-1	ETHENE PPM PN-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0.0004	0.0052	0.0043	0.0047

ITC-747
TETRALIN-NOX
1984 FEB 15

0645: BEGIN WET FLUSH.
0827: STOP FLUSH. 78 F DRY BULB, 66 F WET BULB.
0855: INJECTIONS: 3.56 ML NO1
0.64 ML NO2
355 MICROLITERS TETRALIN.
1015: 70% LIGHTS.
1645: DUMP BAG. FLUSH UNTIL 1800.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.404	PPM
NO2-UNC	C-1600B	0.094	PPM
TETRALIN DB-5C-1		9.317	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP, GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIDI 3378 OZONE MONITOR

ITC-747
TETRALIN-NOX
1984 FEB 15

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	TETRALIN PPM DB-5C
1 824	-111	-----	-----	-----	-----	-----	-----	-----
1 845	-90	0.005	-----	0.000	0.000	0.000	-----	-----
1 900	-75	0.035	-----	0.409	0.089	0.497	-----	-----
1 911	-64	-----	-----	-----	-----	-----	-----	8.8
1 922	-53	-----	-----	-----	-----	-----	-----	-----
1 1000	-15	0.011	-----	0.404	0.094	0.498	-----	-----
1 1015	0	0.011	-----	0.404	0.094	0.496	-----	9.3
1 1030	15	0.014	-----	0.373	0.121	0.494	26.5	-----
1 1045	30	0.022	-----	0.341	0.146	0.487	26.8	-----
1 1100	45	0.029	-----	0.308	0.178	0.485	26.7	-----
1 1115	60	0.043	-----	0.280	0.200	0.480	26.2	10.
1 1130	75	0.051	-----	0.247	0.229	0.474	26.3	-----
1 1145	90	0.055	0.006	0.212	0.255	0.467	26.4	-----
1 1200	105	0.065	0.009	0.179	0.281	0.460	26.5	-----
1 1215	120	0.076	0.014	0.148	0.301	0.448	26.6	10.
1 1230	135	0.099	0.022	0.116	0.322	0.438	26.7	-----
1 1245	150	0.110	0.035	0.090	0.332	0.422	26.7	-----
1 1300	165	0.125	0.052	0.069	0.337	0.405	26.8	-----
1 1315	180	0.154	0.074	0.052	0.332	0.383	26.8	9.1
1 1330	195	0.175	0.103	0.040	0.317	0.357	27.0	-----
1 1345	210	0.205	0.137	0.032	0.292	0.324	27.0	-----
1 1400	225	0.235	0.172	0.026	0.267	0.292	27.1	-----
1 1415	240	0.281	0.218	0.022	0.241	0.263	27.1	8.2
1 1430	255	0.322	0.268	0.019	0.213	0.232	27.1	-----
1 1445	270	0.363	0.318	0.017	0.182	0.199	27.1	-----
1 1500	285	0.412	0.370	0.025	0.195	0.221	27.2	-----
1 1515	300	0.449	0.411	0.016	0.124	0.140	27.3	8.2
1 1530	315	0.476	0.446	0.016	0.096	0.112	27.3	-----
1 1545	330	0.496	0.465	0.017	0.074	0.090	27.1	-----
1 1600	345	0.508	0.477	0.014	0.060	0.075	27.1	-----
1 1605	350	-----	-----	-----	-----	-----	-----	-----
1 1615	360	0.503	0.479	0.014	0.050	0.065	27.1	-----
1 1620	365	-----	-----	-----	-----	-----	-----	7.9
1 1630	375	0.499	0.476	0.015	0.043	0.058	27.0	-----
1 1645	390	0.493	0.466	0.015	0.038	0.053	26.9	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1
1 824	-111	0.17	0.007	0.003	0.0003	0.0004	0.0040	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

-UNC PM	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	TETRALIN PPM DB-5C-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
500B				0.000A		B	
0.000	0.000						
0.089	0.497						
			8.884		0.014		
0.094	0.498						
0.094	0.496		9.317	0.000		0.0016	0.0007
0.121	0.494	26.5					
0.146	0.487	26.8					
0.178	0.485	26.7					
0.200	0.480	26.2	10.67	0.000	0.002	0.0016	
0.229	0.474	26.3					
0.255	0.467	26.4					
0.281	0.460	26.5					
0.301	0.448	26.6	10.58	0.000	0.046	C	
0.322	0.438	26.7					
0.332	0.422	26.7					
0.337	0.405	26.8					
0.332	0.383	26.8	9.196	0.000	0.036	0.0026	0.0003
0.317	0.357	27.0					
0.292	0.324	27.0					
0.267	0.292	27.1					
0.241	0.263	27.1	8.215	0.000	0.008	D	
0.213	0.232	27.1					
0.182	0.199	27.1					
0.195	0.221	27.2					
0.124	0.140	27.3	8.239	0.000	0.016	0.0063	0.0020
0.096	0.112	27.3					
0.074	0.090	27.1					
0.060	0.075	27.1					
					0.010		
0.050	0.065	27.1					
			7.926	0.002		0.0043	0.0010
0.043	0.058	27.0					
0.038	0.053	26.9					

C4 PM IS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
0003	0.0004	0.0040	0.0015	0.0003	0.0047	0.0046

ITC-747
TETRALIN-NOX
1984 FEB 15

NOTES

- A PANALYZER STANDING CURRENT = 71% AT X64 AT MAX. CELL VOLTAGE -- NORMAL IS 75%
- B MUCH NOISE IN EARLY PART OF CHROMATOGRAM BUT NO NOTICABLE PEAKS.
- C MISSED EARLY PART OF CHROMATOGRAM - WRONG ATTENUATION.
- D NO SAMPLE TAKEN.

ITC-748
TETRALIN-NOX
1984 FEBUARY 16

0645: BEGIN WET FLUSH.
0814: STOP FLUSH.
77 F DRY BULB
66 F WET BULB
0853: INJECTIONS: 1.58 ML NO
0.32 ML NO2
355 MICRO L TETRALIN

1015: 70% LIGHTS.
1605: DUMP BAG.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.3	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.179	PPM
NO2-UNC	C-1600B	0.039	PPM
TETRALIN DB-5C-1		8.396	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
2850	DB-5C-1	RH-1211 30 M DB-5 QUARTZ CAP, GC; FID
2100	PN-1	RH-1211 POROPAK-N GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1426	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)

ITC-748
TETRALIN-NOX
1984 FEBUARY 16

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	TETRA PP DB-5
1 824	-111	-----	-----	-----	-----	-----	-----	---
1 847	-88	0.008	0.000	0.001	0.006	0.007	-----	---
1 909	-66	-----	-----	-----	-----	-----	-----	7.
1 920	-55	-----	-----	-----	-----	-----	-----	---
1 959	-16	0.003	0.000	0.181	0.037	0.217	-----	---
1 1015	0	0.011	0.000	0.179	0.039	0.218	-----	8.
1 1030	15	0.014	0.000	0.158	0.058	0.216	26.4	---
1 1045	30	0.020	0.005	0.131	0.084	0.215	26.8	---
1 1100	45	0.031	0.009	0.107	0.107	0.213	26.1	---
1 1115	60	0.049	0.017	0.079	0.127	0.206	25.9	8.
1 1130	75	0.066	0.034	0.055	0.146	0.200	25.9	---
1 1145	90	0.096	0.064	0.039	0.149	0.188	26.0	---
1 1200	105	0.141	0.103	0.030	0.144	0.174	26.1	---
1 1215	120	0.180	0.146	0.024	0.129	0.153	26.1	8.
1 1230	135	0.219	0.185	0.021	0.111	0.132	26.2	---
1 1245	150	0.262	0.223	0.020	0.091	0.111	26.2	---
1 1300	165	0.291	0.263	0.019	0.075	0.094	26.2	---
1 1315	180	0.320	0.294	0.019	0.061	0.079	26.2	8.
1 1330	195	0.339	0.319	0.018	0.048	0.067	26.3	---
1 1345	210	0.361	0.333	0.018	0.039	0.057	26.3	---
1 1400	225	0.369	0.342	0.018	0.033	0.051	26.3	---
1 1415	240	0.364	0.345	0.019	0.027	0.046	26.2	8.
1 1430	255	0.365	0.348	0.018	0.024	0.043	26.3	---
1 1445	270	0.369	0.345	0.018	0.026	0.044	26.3	---
1 1500	285	0.362	0.337	0.018	0.021	0.039	26.3	---
1 1515	300	0.362	0.332	0.018	0.020	0.038	26.9	8
1 1530	315	0.352	0.330	0.018	0.019	0.038	26.8	---
1 1545	330	0.350	0.327	0.017	0.019	0.036	26.9	---
1 1600	345	0.342	0.322	0.019	0.019	0.037	26.9	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PRO P DM
1 824	-111	1.60	0.007	0.004	0.0003	0.0005	0.0095	0.

----- NO DATA TAKEN

27-JUL-84
PAGE 2

2-UNC PPH 1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	TETRALIN PPH DB-5C-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600
-----	-----	-----	-----	0.000A	-----	0.0005	-----
0.006	0.007	-----	-----	-----	-----	-----	-----
-----	-----	-----	7.971	-----	-----	-----	-----
-----	-----	-----	-----	-----	0.028	-----	-----
0.037	0.217	-----	-----	-----	-----	-----	-----
0.039	0.218	-----	8.396	0.000	-----	-----C	-----
0.058	0.216	26.4	-----	-----	-----	-----	-----
0.084	0.215	26.8	-----	-----	-----	-----	-----
0.107	0.213	26.1	-----	-----	-----	-----	-----
0.127	0.206	25.9	8.225	0.000	0.022	0.0016	0.0004
0.146	0.200	25.9	-----	-----	-----	-----	-----
0.149	0.188	26.0	-----	-----	-----	-----	-----
0.144	0.174	26.1	-----	-----	-----	-----	-----
0.129	0.153	26.1	8.678	0.000	0.016	-----D	-----D
0.111	0.132	26.2	-----	-----	-----	-----	-----
0.091	0.111	26.2	-----	-----	-----	-----	-----
0.075	0.094	26.2	-----	-----	-----	-----	-----
0.061	0.079	26.2	8.495	0.000	0.024	0.0029	0.0007
0.048	0.067	26.3	-----	-----	-----	-----	-----
0.039	0.057	26.3	-----	-----	-----	-----	-----
0.033	0.051	26.3	-----	-----	-----	-----	-----
0.027	0.046	26.2	8.451	0.000	0.016	-----D	-----D
0.024	0.043	26.3	-----	-----	-----	-----	-----
0.026	0.044	26.3	-----	-----	-----	-----	-----
0.021	0.039	26.3	-----	-----	-----	-----	-----
0.020	0.038	26.9	8.304	0.000	0.012	0.0050	0.0014
0.019	0.038	26.8	-----	-----	-----	-----	-----
0.019	0.036	26.9	-----	-----	-----	-----	-----
0.019	0.037	26.9	-----	-----	-----	-----	-----

N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	PROPENE PPH DMS-1	I-C4= PPH DMS-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
0.0003	0.0005	0.0095	0.0018	0.0005	0.0094	0.0085

ITC-748
TETRALIN-NOX
1984 FEBUARY 16

NOTES

A PAN-ANALYZER STANDING CURRENT 72% @ X64 WITH CELL VOLTAGE 100%.
C LARGE PEAK UNDERNEATH.
D NO SAMPLE TAKEN -- PRODUCTS STILL COMING OFF OF PREVIOUS SAMPLE.

ITC-749
NOX-AIR IRRADIATION
1984 FEBUARY 17

0645: BEGIN WET FLUSH
0818: STOP FLUSH
75 F DRY BULB
66 F WET BULB
0915: DUMP AND FLUSH
1115: STOP FLUSH
78 F DRY BULB
67 F WET BULB
1325: INJECTIONS: 1.58 ML NO
0.32 ML NO2
0.064 ML N-BUTANE
0.064 ML PROPENE
1345: 70% LIGHTS
1545: DUMP AND FLUSH BAG UNTIL 1700.

T=0 AT 1345 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.4	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.189	PPM
NO2-UNC	C-1600B	0.044	PPM
N-C4	DMS-1	0.0103	PPM
PROPENE	DMS-1	0.0115	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	DASIDI 3378 OZONE MONITOR

ITC-749
NOX-AIR IRRADIATION
1984 FEBUARY 17

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C DMS-
1 1133	-132	-----	-----	-----	-----	0.0002	0.0017	----
1 1315	-30	0.004	0.000	0.004	0.003	-----	-----	----
1 1328	-17	-----	-----	-----	-----	0.0103	0.0115	-0.04
1 1330	-15	0.006	0.191	0.044	0.235	-----	-----	----
1 1345	0	0.005	0.189	0.044	0.233	0.0103	0.0115	-0.03
1 1350	5	-----	-----	-----	-----	-----	-----	----
1 1400	15	0.004	0.188	0.049	0.237	0.0108	0.0117	-0.00
1 1415	30	0.011	0.183	0.053	0.236	0.0099	0.0101	0.05
1 1430	45	0.011	0.180	0.056	0.236	0.0105	0.0103	0.08
1 1445	60	0.012	0.176	0.058	0.234	0.0106	0.0100	0.12
1 1500	75	0.012	0.171	0.063	0.234	0.0105	0.0094	0.12
1 1515	90	0.012	0.167	0.066	0.233	0.0105	0.0090	0.22
1 1530	105	0.012	0.164	0.067	0.231	0.0101	0.0084	0.24
1 1535	110	-----	-----	-----	-----	-----	-----	----
1 1545	120	0.012	0.161	0.070	0.230	0.0104	0.0082	0.30

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYL PPH PN-
1 1133	-132	1.58	0.008	0.004	0.0004	0.0072	0.0002	0.0

----- NO DATA TAKEN

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PAGE 2

UNC PM 500B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3= DMS-1	HCHO PPH CA	ACETALD PPH 10'C-600	PAN PPH ECD-1	T DEG C ANA-TEMP
----	0.0002	0.0017	-----	-----	0.0005	0.000	-----
.003	-----	-----	-----	-----	-----	-----	-----
----	0.0103	0.0115	-0.0416	-----	-----	-----	-----
.235	-----	-----	-----	-----	-----	-----	-----
.233	0.0103	0.0115	-0.0358	-----	-----	-----	-----
----	-----	-----	-----	0.006	-----	-----	-----
.237	0.0108	0.0117	-0.0092	-----	-----	-----	26.8
.236	0.0099	0.0101	0.0508	-----	-----	-----	27.0
.236	0.0105	0.0103	0.0884	-----	-----	-----	26.4
.234	0.0106	0.0100	0.1258	-----	-----	-----	26.1
.234	0.0105	0.0094	0.1797	-----	-----	-----	26.2
.233	0.0105	0.0090	0.2249	-----	-----	-----	26.4
.231	0.0101	0.0084	0.2616	-----	-----	-----	26.3
----	-----	-----	-----	0.008	-----	-----	-----
.230	0.0104	0.0082	0.3076	-----	-----	-----	26.3

C4 PM S-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
0004	0.0072	0.0002	0.0100	0.0104

ITC-750
TETRALIN-NOX + TRACERS
1984 FEBUARY 22

0645: BEGIN WET FLUSH.
0817: STOP FLUSH. R.H. 50%
78 F DRY BULB
66 F WET BULB
0903: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
177 MICRO L TETRALIN -- USED HEAT GUN
1015: 70% LIGHTS
1616: DUMP BAG. FLUSH UNTIL 1730.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.5	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.414	PPM
NO2-UNC	C-1600B	0.112	PPM
TETRALIN	DB-5C-1	4.449	PPM
N-C4	DMS-1	0.0102	PPM
PROPENE	DMS-1	0.0118	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DINETHYLSULFOLANE GC1 FID
2100	PM-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP, GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3000	CA	CHROMOTROPIC ACID NCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)

ITC-750
TETRALIN-NOX + TRACERS
1984 FEBUARY 22

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	TETRALIN PPH DB-5C-1	LNC4/ DMS
1 826	-109	-----	-----	-----	-----	-----	-----	---
1 915	-60	-----	-----	-----	-----	-----	4.154	-0.0
1 1000	-15	0.012	0.000	0.414	0.115	0.528	-----	---
1 1015	0	0.012	0.000	0.414	0.112	0.525	4.449	-0.0
1 1030	15	0.006	0.000	0.374	0.150	0.524	-----	-0.0
1 1045	30	0.019	0.000	0.348	0.176	0.522	-----	-0.0
1 1100	45	0.022	0.000	0.320	0.199	0.517	-----	-0.0
1 1115	60	0.015	0.001	0.293	0.219	0.512	4.302	-0.0
1 1130	75	0.024	0.000	0.263	0.247	0.508	-----	-0.0
1 1145	90	0.031	0.000	0.236	0.268	0.503	-----	-0.0
1 1200	105	0.031	0.001	0.208	0.293	0.500	-----	-0.0
1 1215	120	0.033	0.012	0.178	0.317	0.494	4.271	-0.0
1 1230	135	0.038	0.016	0.154	0.334	0.487	-----	-0.0
1 1245	150	0.050	0.021	0.130	0.349	0.477	-----	0.0
1 1300	165	0.053	0.029	0.107	0.363	0.469	-----	0.0
1 1315	180	0.062	0.038	0.086	0.375	0.460	4.098	0.0
1 1330	195	0.081	0.053	0.069	0.378	0.445	-----	0.0
1 1345	210	0.094	0.069	0.056	0.374	0.428	-----	0.0
1 1400	225	0.113	0.088	0.043	0.365	0.406	-----	0.1
1 1415	240	0.140	0.114	0.035	0.352	0.386	4.068	0.1
1 1430	255	0.172	0.147	0.028	0.334	0.361	-----	---
1 1445	270	0.206	0.183	0.021	0.317	0.337	-----	---
1 1500	285	0.250	0.224	0.019	0.296	0.313	-----	---
1 1515	300	0.299	0.273	0.016	0.275	0.290	3.858	0.4
1 1530	315	0.340	0.319	0.013	0.247	0.260	-----	---
1 1545	330	0.392	0.368	0.012	0.217	0.229	-----	---
1 1600	345	0.441	0.420	0.011	0.191	0.202	-----	---
1 1615	360	0.482	0.464	0.011	0.162	0.172	3.618	0.6

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PAGE 2

P-UNC PPH 1600B	NOX-UNC PPH C-1600B	TETRALIN PPH DB-5C-1	LNC4/C3= DMS-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1
-----	-----	-----	-----	0.0002	0.0018	-----	0.000
-----	-----	4.154	-0.0709	0.0101	0.0116	-----	-----
0.115	0.528	-----	-----	-----	-----	-----	-----
0.112	0.525	4.449	-0.0782	0.0102	0.0118	-----	0.000
0.150	0.524	-----	-0.0856	0.0101	0.0118	27.0	-----
0.176	0.522	-----	-0.0771	0.0103	0.0119	26.5	-----
0.199	0.517	-----	-0.0524	0.0103	0.0116	26.0	-----
0.219	0.512	4.302	-0.0551	0.0102	0.0115	26.2	0.000
0.247	0.508	-----	-0.0440	0.0101	0.0112	26.4	-----
0.268	0.503	-----	-0.0401	0.0104	0.0116	26.3	-----
0.293	0.500	-----	-0.0350	0.0106	0.0117	26.4	-----
0.317	0.494	4.271	-0.0312	0.0103	0.0114	26.3	0.000
0.334	0.487	-----	-0.0156	0.0104	0.0113	26.4	-----
0.349	0.477	-----	0.0012	0.0103	0.0110	26.4	-----
0.363	0.469	-----	0.0283	0.0103	0.0108	26.4	-----
0.375	0.460	4.098	0.0311	0.0103	0.0106	26.4	0.000
0.378	0.445	-----	0.0501	0.0105	0.0107	26.4	-----
0.374	0.428	-----	0.0879	0.0104	0.0102	26.4	-----
0.365	0.406	-----	0.1163	0.0104	0.0099	26.5	-----
0.352	0.386	4.068	0.1570	0.0105	0.0096	26.5	0.000
0.334	0.361	-----	-----	-----	-----	26.5	-----
0.317	0.337	-----	-----	-----	-----	26.5	-----
0.296	0.313	-----	-----	-----	-----	26.6	-----
0.275	0.290	3.858	0.4084	0.0106	0.0076	26.6	0.000
0.247	0.260	-----	-----	-----	-----	26.8	-----
0.217	0.229	-----	-----	-----	-----	26.6	-----
0.191	0.202	-----	-----	-----	-----	26.5	-----
0.162	0.172	3.618	0.8477	0.0104	0.0048	26.5	0.002

ITC-750
TETRALIN-NOX + TRACERS
1984 FEBUARY 22

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	BUTYRAL PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PI
1 826	-109	-----	0.0009	0.0014	0.0026	0.37	0.007	
1 922	-53	0.000	-----	-----	-----	-----	-----	
1 1015	0	-----	0.0014	0.0003	-----	-----	-----	
1 1115	60	0.000	0.0020	0.0015	-----	-----	-----	
1 1215	120	0.000	0.0016	0.0011	-----	-----	-----	
1 1315	180	-----	0.0021	0.0015	-----	-----	-----	
1 1415	240	0.002	-----	-----	-----	-----	-----	
1 1515	300	0.004	-----	-----	-----	-----	-----	
1 1605	350	0.008	-----	-----	-----	-----	-----	
1 1615	360	-----	0.0076	0.0023	0.0023	-----	-----	

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 826	-109	0.003	0.003

----- NO DATA TAKEN

27-JUL-84
PAGE 3

AL	METHANE	ETHANE	PROPANE	I-C4	ETHENE	I-C4=
	PPM	PPM	PPM	PPM	PPM	PPM
000	PN-1	PN-1	DMS-1	DMS-1	PN-1	DMS-1
026	0.37	0.007	0.0042	0.0004	0.0096	0.0003
---	---	---	---	---	---	---
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---	---	---	---	---	---	---
023	---	---	---	---	---	---

ITC-751
NAPHTHALENE-NOX
1984 FEBUARY 23

0645: BEGIN WET FLUSH.
0819: STOP FLUSH. R.H. 50% @ 80 F.
76 F DRY BULB
66 F WET BULB
0824: START N2 FLUSH OF NAPHTHALENE TUBE 21 PM 30 MINUTES
NO: 3.56 ML
NO2: 0.64 ML
1630: DUMP BAG. FLUSH UNTIL 1800.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.5	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.409	PPM
NO2-UNC	C-1600B	0.115	PPM
NAPHTHAL	SP C-II	0.749	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)

ITC-751
NAPHTHALENE-NOX
1984 FEBUARY 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	NAPHTH PPM SP C-
1 820	-70	-----	-----	-----	-----	-----	-----	0.0
1 858	-32	-----	-----	-----	-----	-----	-----	0.0
1 914	-16	-----	-----	-----	-----	-----	-----	-----
1 915	-15	0.261	0.000	0.418	0.029	0.446	-----	-----
1 930	0	0.051	0.000	0.409	0.115	0.522	-----	0.0
1 945	15	0.015	0.002	0.411	0.112	0.521	25.8	-----
1 1000	30	0.006	0.001	0.388	0.133	0.520	26.1	-----
1 1015	45	0.005	0.001	0.373	0.147	0.518	26.4	-----
1 1030	60	0.011	0.003	0.351	0.165	0.514	26.2	0.0
1 1045	75	0.004	0.003	0.311	0.199	0.508	26.0	-----
1 1100	90	0.005	0.003	0.308	0.198	0.505	25.9	-----
1 1115	105	0.011	0.004	0.286	0.215	0.500	26.1	-----
1 1130	120	0.016	0.006	0.264	0.235	0.499	26.3	0.0
1 1145	135	0.019	0.006	0.246	0.247	0.492	26.4	-----
1 1200	150	0.020	0.008	0.224	0.265	0.487	26.8	-----
1 1215	165	0.015	0.010	0.205	0.279	0.482	26.8	-----
1 1230	180	0.021	0.012	0.184	0.295	0.478	26.8	0.0
1 1245	195	0.029	0.015	0.168	0.292	0.459	26.8	-----
1 1300	210	0.031	0.017	0.150	0.316	0.464	26.8	-----
1 1315	225	0.031	0.020	0.134	0.324	0.457	26.8	-----
1 1330	240	0.039	0.026	0.121	0.331	0.450	26.8	0.0
1 1335	245	-----	-----	-----	-----	-----	-----	-----
1 1345	255	0.035	0.029	0.106	0.338	0.443	26.9	-----
1 1400	270	0.043	0.034	0.094	0.342	0.435	26.3	-----
1 1415	285	0.044	0.038	0.085	0.347	0.430	26.4	-----
1 1430	300	0.054	0.045	0.074	0.347	0.419	26.3	0.0
1 1445	315	0.055	0.051	0.063	0.351	0.413	26.5	-----
1 1500	330	0.071	0.059	0.057	0.346	0.402	26.5	-----
1 1515	345	0.079	0.066	0.051	0.343	0.393	26.5	-----
1 1520	350	-----	-----	-----	-----	-----	-----	-----
1 1530	360	0.081	0.071	0.046	0.340	0.385	26.5	0.0
1 1545	375	0.091	0.080	0.041	0.315	0.355	26.5	-----
1 1600	390	0.099	0.087	0.035	0.335	0.369	26.4	-----
1 1615	405	0.109	0.098	0.032	0.331	0.361	26.4	-----
1 1630	420	0.113	0.106	0.029	0.321	0.349	26.6	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHE PPM PN-
1 820	-70	0.000	1.46	0.005	0.004	0.0002	0.0004	0.0

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC PM 600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	NAPHTHAL PPM SP C-II	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
-----	-----	-----	0.000	-----	0.0007	0.0010	0.0000
-----	-----	-----	0.713	-----	-----	-----	-----
-----	-----	-----	-----	0.000	-----	-----	-----
.029	0.446	-----	-----	-----	-----	-----	-----
.115	0.522	-----	0.749	-----	0.0007	0.0004	0.0000
.112	0.521	25.8	-----	-----	-----	-----	-----
.133	0.520	26.1	-----	-----	-----	-----	-----
.147	0.518	26.4	-----	-----	-----	-----	-----
.165	0.514	26.2	0.684	0.000	0.0011	0.0008	0.0000
.199	0.508	26.0	-----	-----	-----	-----	-----
.198	0.505	25.9	-----	-----	-----	-----	-----
.215	0.500	26.1	-----	-----	-----	-----	-----
.235	0.499	26.3	0.665	0.000	0.0026	0.0016	0.0000
.247	0.492	26.4	-----	-----	-----	-----	-----
.265	0.487	26.8	-----	-----	-----	-----	-----
.279	0.482	26.8	-----	-----	-----	-----	-----
.295	0.478	26.8	0.574	0.002	0.0025	0.0020	0.0001
.292	0.459	26.8	-----	-----	-----	-----	-----
.316	0.464	26.8	-----	-----	-----	-----	-----
.324	0.457	26.8	-----	-----	-----	-----	-----
.331	0.450	26.8	0.507	-----	0.0025	0.0015	-----
-----	-----	-----	-----	0.000	-----	-----	-----
.338	0.443	26.9	-----	-----	-----	-----	-----
.342	0.435	26.3	-----	-----	-----	-----	-----
.347	0.430	26.4	-----	-----	-----	-----	-----
.347	0.419	26.3	0.458	0.000	0.0036	0.0025	0.0001
.351	0.413	26.5	-----	-----	-----	-----	-----
.346	0.402	26.5	-----	-----	-----	-----	-----
.343	0.393	26.5	-----	-----	-----	-----	-----
-----	-----	-----	-----	0.022	-----	-----	-----
.340	0.385	26.5	0.394	-----	0.0040	0.0034	0.0002
.315	0.355	26.5	-----	-----	-----	-----	-----
.335	0.369	26.4	-----	-----	-----	-----	-----
.331	0.361	26.4	-----	-----	-----	-----	-----
.321	0.349	26.6	-----	-----	-----	-----	-----
JPANE PPM 18-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	1-C4= PPM DMS-1	I-C4= PPM DMS-1	T2-C4= PPM DMS-1
.004	0.0002	0.0004	0.0030	0.0016	0.0001	0.0002	0.0000

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ITC-751
NAPHTHALENE-NOX
1984 FEBUARY 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 820	-70	0.0027	0.0025

----- NO DATA TAKEN

ITC-752
NOX-AIR IRRADIATION
1984 FEBRUARY 24

0645: START WET FLUSH.
0812: STOP FLUSH. R.H. ~50% @ 80 F.
0946: INJECTIONS: 3.56 ML NO
 0.64 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE

1000: 70% LIGHTS.
1200: DUMP BAG.

T=0 AT 1000 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	78.7	2.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.437	PPM
NO2-UNC	C-1600B	0.114	PPM
N-C4	DMS-1	0.0103	PPM
PROPENE	DMS-1	0.0119	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-752
NOX-AIR IRRADIATION
1984 FEBUARY 24

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-8410	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	N-C4 PPM DMS-1	PROP PPM DMS-1
1 911	-49	-----	-----	-----	-----	-----	0.0004	0.0
1 945	-15	0.000	0.009	0.001	0.004	0.005	-----	---
1 948	-12	-----	-----	-----	-----	-----	0.0103	0.0
1 1000	0	0.000	0.011	0.437	0.114	0.550	0.0103	0.0
1 1015	15	0.000	0.004	0.432	0.120	0.550	0.0104	0.0
1 1030	30	0.001	0.004	0.424	0.126	0.549	0.0101	0.0
1 1045	45	0.001	0.005	0.418	0.128	0.544	0.0102	0.0
1 1100	60	0.001	0.006	0.412	0.131	0.542	0.0101	0.0
1 1115	75	0.000	0.005	0.407	0.134	0.540	0.0099	0.0
1 1130	90	0.001	0.010	0.402	0.135	0.536	0.0099	0.0
1 1145	105	0.000	0.010	0.399	0.137	0.535	0.0098	0.0
1 1150	110	-----	-----	-----	-----	-----	-----	---
1 1200	120	0.000	0.011	0.395	0.137	0.530	0.0098	0.0
1 1215	135	-----	-----	-----	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	PAN PPM ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHE PPM PN-
1 911	-49	0.0011	0.000	1.56	0.005	0.004	0.0005	---
1 925	-35	-----	-----	-----	0.004	-----	-----	0.0

----- NO DATA TAKEN

NOTES

- A PEAK OFFSCALE -- EXCESS ETHYLENE DUE TO VENT FROM MONITOR LABS
EXHAUSTING UNDER ITC.

27-JUL-84
PAGE 2

NOX-UNC PPH C-1600B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3= DMS-1	T DEG C DORIC-1	HCHO PPH CA	ACETALD PPH 10'C-600
-----	0.0004	0.0017	-----	-----	-----	0.0009
0.005	-----	-----	-----	-----	-----	-----
-----	0.0103	0.0119	-0.0717	-----	-----	-----
14 0.550	0.0103	0.0119	-0.0768	-----	0.000	-----
20 0.550	0.0104	0.0114	-0.0251	78.5	-----	-----
26 0.549	0.0101	0.0106	0.0151	79.3	-----	-----
28 0.544	0.0102	0.0102	0.0700	79.9	-----	-----
31 0.542	0.0101	0.0096	0.1119	80.1	-----	-----
34 0.540	0.0099	0.0091	0.1527	79.8	-----	-----
35 0.536	0.0099	0.0087	0.1991	80.0	-----	-----
37 0.535	0.0098	0.0082	0.2448	80.0	-----	-----
-----	-----	-----	-----	-----	0.000	-----
137 0.530	0.0098	0.0079	0.2868	79.4	-----	-----
-----	-----	-----	-----	70.9	-----	-----

ANE PPH -1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
0.005	0.004	0.0005	-----A	0.0002	0.0054	0.0060
0.004	-----	-----	0.0131	-----	0.0053	-----

NT FROM MONITOR LABS

ITC-754
PROPENE-NOX
1984 FEBUARY 27

0645: START WET FLUSH.
0833: STOP FLUSH. R.H. ~50% @ 80 F.
78 F DRY BULB
66 F WET BULB
0854: INJECTIONS: 3.56 ML NO
0.64 ML NO2
6.4 ML PROPENE
915: 70% LIGHTS.
1530: DUMP BAG AND FLUSH UNTIL 1700.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.428	PPM
NO2-UNC	C-1600B	0.129	PPM
PROPENE	DMS-1	0.975	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-1211 POROPAK-N GC; FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-754
PROPENE-NOX
1984 FEBUARY 27

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH MO3-8410	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	PROPENE PPH DMS-1	PAN PPH ECD-
1 832	-43	-----	-----	-----	-----	-----	0.002	0.0
1 856	-19	-----	-----	-----	-----	-----	0.984	-----
1 900	-15	0.000	0.010	0.437	0.131	0.567	-----	-----
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.000	0.011	0.428	0.129	0.556	0.975	0.0
1 930	15	0.001	0.010	0.364	0.185	0.548	-----	-----
1 945	30	0.004	0.012	0.293	0.248	0.540	-----	-----
1 1000	45	0.007	0.019	0.228	0.303	0.529	-----	-----
1 1015	60	0.014	0.020	0.167	0.354	0.519	0.841	0.0
1 1030	75	0.027	0.031	0.112	0.396	0.506	-----	-----
1 1045	90	0.050	0.051	0.069	0.426	0.493	-----	-----
1 1100	105	0.092	0.087	0.037	0.441	0.476	-----	-----
1 1115	120	0.154	0.152	0.019	0.441	0.458	0.556	0.0
1 1130	135	0.232	0.222	0.010	0.430	0.439	-----	-----
1 1145	150	0.312	0.295	0.006	0.415	0.419	-----	-----
1 1200	165	0.390	0.365	0.003	0.399	0.401	-----	-----
1 1215	180	0.461	0.441	0.002	0.384	0.384	0.285	0.0
1 1230	195	0.528	0.494	0.000	0.371	0.370	-----	-----
1 1245	210	0.576	0.544	0.000	0.359	0.357	-----	-----
1 1300	225	0.618	0.591	0.000	0.349	0.346	-----	-----
1 1315	240	0.662	0.631	0.000	0.340	0.337	-----	6.
1 1330	255	0.697	0.670	0.000	0.331	0.329	0.069	-----
1 1345	270	0.733	0.693	0.000	0.324	0.322	-----	-----
1 1400	285	0.758	0.720	0.000	0.317	0.315	-----	-----
1 1415	300	0.782	0.743	0.000	0.314	0.311	0.030	0.0
1 1430	315	0.805	0.769	0.000	0.309	0.306	-----	-----
1 1445	330	0.826	0.782	0.000	0.307	0.303	-----	-----
1 1500	345	0.846	0.800	0.000	0.301	0.298	-----	-----
1 1505	350	-----	-----	-----	-----	-----	-----	-----
1 1515	360	0.859	0.811	0.000	0.300	0.297	0.010	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	1-C PPH DMS
1 832	-43	1.37	0.007	0.004	0.0002	0.0005	0.0065	0.0

----- NO DATA TAKEN

-UNC PM 600B	NOX-UNC PPM C-1600B	PROPENE PPM DMS-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	T DEG C ANA-TEMP
-----	-----	0.002	0.000	-----	0.0011	0.0007	-----
-----	-----	0.984	-----	-----	-----	-----	-----
.131	0.567	-----	-----	0.014	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
.129	0.556	0.975	0.000	-----	0.0004	0.0000	-----
.185	0.548	-----	-----	-----	-----	-----	26.2
.248	0.540	-----	-----	-----	-----	-----	26.7
.303	0.529	-----	-----	-----	-----	-----	26.6
.354	0.519	0.841	0.003	0.065	0.0558	0.0026	26.3
.396	0.506	-----	-----	-----	-----	-----	26.5
.426	0.493	-----	-----	-----	-----	-----	26.7
.441	0.476	-----	-----	-----	-----	-----	26.7
.441	0.458	0.556	0.026	0.204	-----	-----	26.8
.430	0.439	-----	-----	-----	0.2071	0.0073	26.9
.415	0.419	-----	-----	-----	-----	-----	27.0
.399	0.401	-----	-----	-----	-----	-----	27.1
.384	0.384	0.285	0.110	0.226	0.2354	0.0095	27.2
.371	0.370	-----	-----	-----	-----	-----	27.2
.359	0.357	-----	-----	-----	-----	-----	27.2
.349	0.346	-----	-----	-----	-----	-----	27.1
.340	0.337	-----	0.220	-----	0.2513	0.0104	27.2
.331	0.329	0.069	-----	-----	-----	-----	27.2
.324	0.322	-----	-----	-----	-----	-----	27.0
.317	0.315	-----	-----	-----	-----	-----	26.9
.314	0.311	0.030	0.300	0.325	0.2141	0.0097	27.1
.309	0.306	-----	-----	-----	-----	-----	27.1
.307	0.303	-----	-----	-----	-----	-----	27.1
.301	0.298	-----	-----	0.301	-----	-----	27.1
.300	0.297	0.010	0.350	-----	0.1693	0.0084	27.2

-C4 PPM IS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	1-C4= PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0.0002	0.0005	0.0065	0.0001	0.0002	0.0045	0.0047

ITC-755
NAPHTHALENE-NOX + TRACERS
1984 FEBUARY 28

0645: START WET FLUSH. LAB FLOOR FLOODED.

0812: STOP FLUSH. R.H. 80%

80 F DRY BULB

67 F WET BULB

0846: NAPHTHALENE FLUSH 2.01 PM FOR 60 MIN.

OTHER INJECTION: 1.78 ML NO

0.32 ML NO2

0.064 ML PROPENE

0.064 ML N-BUTANE

1045: 70% LIGHTS.

1645: DUMP AND FLUSH UNTIL 1800.

T=0 AT 1045 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.189	PPH
NO2-UNC	C-1600B	0.052	PPH
NAPHTHAL	SP C-II	1.405	PPH
N-C4	DMS-1	0.0099	PPH
PROPENE	DMS-1	0.0105	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIDI 3378 OZONE MONITOR

ITC-755
NAPHTHALENE-NOX + TRACERS
1984 FEBRUARY 28

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH MO3-B410	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	NAPHTHAL PPH SP C-II	LNC
1 825	-140	-----	-----	-----	-----	-----	0.000	-
1 1000	-45	-----	-----	-----	-----	-----	1.467	-0
1 1020	-25	-----	-----	-----	-----	-----	1.417	-0
1 1030	-15	0.000	0.021	0.190	0.051	0.241	-----	-
1 1035	-10	-----	-----	-----	-----	-----	-----	-
1 1045	0	0.000	0.016	0.189	0.052	0.241	1.405	-0
1 1100	15	0.001	0.011	0.176	0.063	0.239	-----	-0
1 1115	30	0.003	0.014	0.160	0.079	0.238	-----	-0
1 1130	45	0.004	0.012	0.145	0.093	0.237	-----	-0
1 1145	60	0.007	0.010	0.122	0.108	0.230	1.370	-0
1 1200	75	0.010	0.012	0.102	0.127	0.229	-----	-0
1 1215	90	0.014	0.012	0.082	0.142	0.223	-----	0
1 1230	105	0.023	0.021	0.062	0.157	0.218	-----	0
1 1245	120	0.035	0.043	0.044	0.167	0.210	1.356	0
1 1300	135	0.052	0.059	0.032	0.171	0.203	-----	0
1 1315	150	0.071	0.066	0.022	0.172	0.194	-----	0
1 1330	165	0.095	0.101	0.016	0.165	0.181	-----	0
1 1345	180	0.116	0.125	0.012	0.153	0.164	1.246	-
1 1400	195	0.141	0.152	0.009	0.143	0.152	-----	-
1 1415	210	0.164	0.179	0.006	0.131	0.138	-----	-
1 1430	225	0.188	0.194	0.006	0.116	0.121	-----	-
1 1445	240	0.208	0.220	0.004	0.099	0.103	1.128	-
1 1500	255	0.231	0.240	0.003	0.085	0.088	-----	-
1 1515	270	0.247	0.260	0.003	0.066	0.069	-----	-
1 1530	285	0.258	0.279	0.001	0.053	0.054	-----	-
1 1545	300	0.259	0.289	0.001	0.041	0.043	0.908B	-
1 1600	315	0.257	0.285	0.001	0.034	0.035	-----	-
1 1615	330	0.252	0.290	0.001	0.030	0.031	-----	-
1 1630	345	0.246	0.290	0.001	0.027	0.029	-----	-
1 1645	360	0.194	0.184	0.002	0.038	0.041	0.782	-

27-JUL-84
PAGE 2

2-UNC PPM 1600B	NOX-UNC PPM C-1600B	NAPHTHAL PPM SP C-II	LNC4/C3=	N-C4 PPM DMS-1	PROPENE PPM DMS-1	T DEG C ANA-TEMP	HCHO PPM CA
-----	-----	0.000	-----	0.0002	0.0017	-----	-----
-----	-----	1.467	-0.0330	0.0099	0.0102	-----	-----
-----	-----	1.417	-0.0400	0.0098	0.0102	-----	-----
0.051	0.241	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	0.000
0.052	0.241	1.405	-0.0550	0.0099	0.0105	-----	-----
0.063	0.239	-----	-0.0490	0.0101	0.0106	26.0	-----
0.079	0.238	-----	-0.0280	0.0099	0.0102	26.3	-----
0.093	0.237	-----	-0.0250	0.0103	0.0106	26.6	-----
0.108	0.230	1.370	-0.0140	0.0093	0.0094	26.7	0.000
0.127	0.229	-----	-0.0030	0.0095	0.0095	26.8	-----
0.142	0.223	-----	0.0260	0.0100	0.0098	26.9	-----
0.157	0.218	-----	0.0250	0.0102	0.0099	26.8	-----
0.167	0.210	1.356	0.0630	0.0099	0.0093	27.1	0.000
0.171	0.203	-----	0.0840	0.0098	0.0090	26.9	-----
0.172	0.194	-----	0.1160	0.0098	0.0087	26.9	-----
0.165	0.181	-----	0.1460	0.0101	0.0091	26.9	-----
0.153	0.164	1.246	-----	-----	-----	27.0	0.002
0.143	0.152	-----	-----	-----	-----	26.9	-----
0.131	0.138	-----	-----	-----	-----	27.0	-----
0.116	0.121	-----	-----	-----	-----	27.2	-----
0.099	0.103	1.128	-----	-----	-----	27.1	0.002
0.085	0.088	-----	-----	-----	-----	27.1	-----
0.066	0.069	-----	-----	-----	-----	27.2	-----
0.053	0.054	-----	-----	-----	-----	27.2	-----
0.041	0.043	0.9088	-----	-----	-----	27.1	0.002
0.034	0.035	-----	-----	-----	-----	27.0	-----
0.030	0.031	-----	-----	-----	-----	27.0	-----
0.027	0.029	-----	-----	-----	-----	27.2	-----
0.038	0.041	0.782	-----	0.0099	0.0027	27.3	-----

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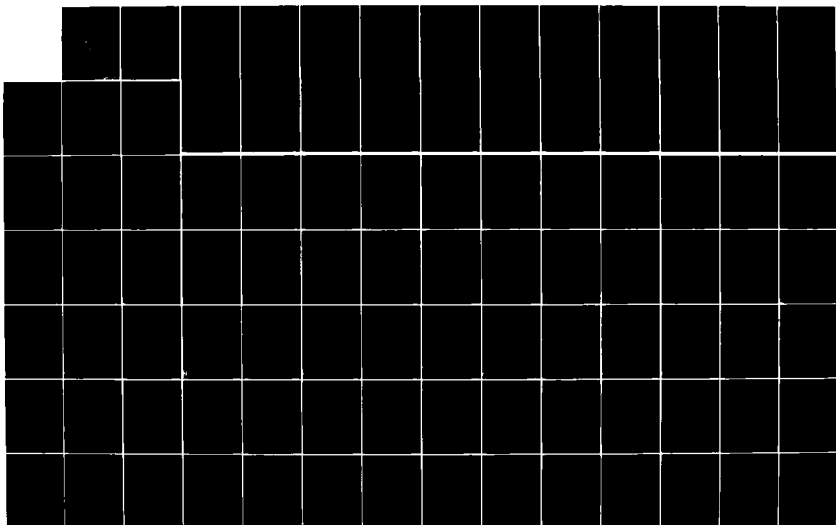
ATMOSPHERIC PHOTOCHEMICAL MODELING OF TURBINE ENGINE
FUELS PHASE I EXPERIMENT (U) CALIFORNIA UNIV RIVERSIDE
STATEWIDE AIR POLLUTION RESEARCH CENTER
W P CARTER ET AL SEP 84

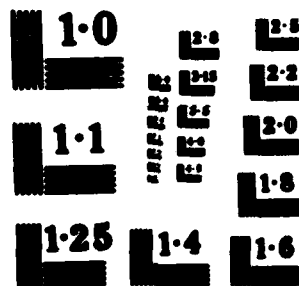
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UNCLASSIFIED

F/G 4/1

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ITC-755
NAPHTHALENE-NOX + TRACERS
1984 FEBUARY 28

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	PAN PPH ECD-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I- P DM
1 825	-140	0.0009	0.0006	0.000	1.40	0.006	0.004	0.
1 1045	0	0.0012	0.0014	-----	-----	-----	-----	--
1 1145	60	0.0015	0.0010	-----	-----	-----	-----	--
1 1245	120	0.0020	0.0014	-----	-----	-----	-----	--
1 1345	180	0.0026	0.0023	-----	-----	-----	-----	--
1 1445	240	0.0028	0.0025	-----	-----	-----	-----	--
1 1545	300	0.0046	-----A	-----	-----	-----	-----	--
1 1645	360	0.0061	0.0025	-----	-----	-----	0.005	0.

----- NO DATA TAKEN

NOTES

- A OFFSCALE.
B INTERFERENCE PEAK UNDER NAPHTHALENE. BASELINE IS ESTIMATED AND IS NOT STRAIGHT.

27-JUL-84
PAGE 3

ETHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
0.40	0.006	0.004	0.0005	0.0060	0.0001	0.0032	0.0029
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.005	0.0009	-----	0.0001	-----	0.0038

INE IS ESTIMATED AND IS NOT

ITC-756
NAPHTHALENE-NOX + TRACERS
1984-FEBUARY-29

0645: BEGIN WET FLUSH.
0802: STOP FLUSH. R.H. ~50% @ 80 F.
0803: BEGIN N2 NAPHTHALENE FLUSH 2 L/MIN 120 MIN.
1003: STOP NAPHTHELENE FLUSH.
INJECTIONS:

1.78 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

1100: 70% LIGHTS.
1615: DUMP AND FLUSH UNTIL 1800.

T=0 AT 1100 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.8	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.206	PPM
NO2-UNC	C-1600B	0.051	PPM
NAPHTHAL	SP C-II	2.736	PPM
N-C4	DHS-1	0.0094	PPM
PROPENE	DHS-1	0.0108	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID MCHO ANALYSIS
2200	DHS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2100	PH-1	RH-121; POROPAK-Q GC; FID
2000	ECB-1	RH-121; 12' 5% CARBONAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBONAX-600 GC; FID
2702	SP C-II	RH-103; SUPERPAK-II; FID(TENAX)
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3378	B-3378	BAIDBI 3378 OZONE MONITOR
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)

ITC-756
NAPHTHALENE-NOX + TRACERS
1984-FEBUARY-29

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	NAPHTHAL PPH SP C-II	LNC4/C DMS-
1 810	-170	-----	-----	-----	-----	-----	-----	-----
1 1000	-60	-----	-----	0.005	0.007	0.012	-----	-----
1 1010	-50	-----	-----	-----	-----	-----	-----	-0.07
1 1016	-44	-----	-----	-----	-----	-----	-----	-----
1 1035	-25	-----	-----	-----	-----	-----	2.805	-0.08
1 1045	-15	0.019	0.001	0.204	0.053	0.256	-----	-----
1 1100	0	0.020	0.000	0.204	0.051	0.256	2.736	-0.06
1 1115	15	0.001	0.002	0.179	0.075	0.254	-----	-0.07
1 1130	30	0.000	0.004	0.153	0.100	0.252	-----	-0.07
1 1145	45	0.009	0.007	0.123	0.124	0.247	-----	-0.07
1 1200	60	0.000	0.015	0.091	0.150	0.241	2.508	-0.03
1 1215	75	0.021	0.027	0.063	0.171	0.233	-----	-0.04
1 1230	90	0.044	0.044	0.042	0.181	0.222	-----	-0.01
1 1245	105	0.079	0.070	0.028	0.182	0.209	-----	0.01
1 1300	120	0.111	0.096	0.020	0.171	0.191	2.510	0.05
1 1315	135	0.141	0.125	0.015	0.161	0.175	-----	-----
1 1330	150	0.156	0.151	0.012	0.145	0.157	-----	-----
1 1345	165	0.185	0.174	0.010	0.127	0.136	-----	-----
1 1400	180	0.209	0.194	0.008	0.110	0.117	2.302	-----
1 1415	195	0.233	0.215	0.006	0.092	0.098	-----	-----
1 1430	210	0.251	0.232	0.006	0.074	0.080	-----	-----
1 1445	225	0.269	0.242	0.004	0.057	0.063	-----	-----
1 1500	240	0.274	0.242	0.005	0.045	0.050	2.074	-----
1 1515	255	0.273	0.239	0.005	0.037	0.042	-----	-----
1 1530	270	0.282	0.235	0.005	0.033	0.037	-----	-----
1 1545	285	0.265	0.226	0.004	0.030	0.034	-----	-----
1 1600	300	0.267	0.216	0.004	0.027	0.031	2.016	-----
1 1615	315	0.269	0.212	0.005	0.026	0.031	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10°C-400	ACETONE PPH 10°C-400	PAN PPH ECD-1	METHANE PPH PM-1	ETHANE PPH PM-1	PROPANE PPH DMS-1	I-C4 PPH DMS-
1 810	-170	0.0009	0.0005	0.000	1.45	0.004	0.004	0.00
1 1100	0	0.0013	0.0007	-----	-----	-----	-----	-----
1 1200	60	0.0018	0.0008	-----	-----	-----	-----	-----
1 1300	120	0.0027	0.0023	-----	-----	-----	-----	-----
1 1400	180	0.0028	0.0019	-----	-----	-----	-----	-----
1 1500	240	0.0040A	0.0032A	-----	-----	-----	-----	-----
1 1600	300	0.0050A	0.0035A	-----	-----	-----	0.004	0.0

----- NO DATA TAKEN

27-JUL-84
PAGE 2

INC I JOB	NOX-UNC PPH C-1600B	NAPHTHAL PPH SP C-II	LNC4/C3= DMS-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DES C ANA-TEMP	HCHO PPH CA
---	-----	-----	-----	0.0002	0.0017	-----	-----
007	0.012	-----	-----	-----	-----	-----	-----
---	-----	-----B	-0.0750	0.0093	0.0107	-----	-----
---	-----	-----	-----	-----	-----	-----	0.000
---	-----	2.805	-0.0810	0.0095	0.0111	-----	-----
053	0.256	-----	-----	-----	-----	-----	-----
051	0.256	2.736	-0.0690	0.0094	0.0108	-----	-----
075	0.254	-----	-0.0700	0.0093	0.0107	27.1	-----
100	0.252	-----	-0.0750	0.0097	0.0112	26.2	-----
124	0.247	-----	-0.0700	0.0097	0.0111	26.3	-----
150	0.241	2.508	-0.0300	0.0094	0.0103	26.5	0.000
171	0.233	-----	-0.0460	0.0092	0.0103	26.5	-----
181	0.222	-----	-0.0130	0.0095	0.0103	26.7	-----
182	0.209	-----	0.0160	0.0094	0.0099	26.7	-----
171	0.191	2.510	0.0510	0.0094	0.0096	26.7	0.000
161	0.175	-----	-----	-----	-----	26.9	-----
145	0.157	-----	-----	-----	-----	26.9	-----
127	0.136	-----	-----	-----	-----	26.8	-----
110	0.117	2.302	-----	-----	-----	27.1	0.004
092	0.098	-----	-----	-----	-----	27.1	-----
074	0.080	-----	-----	-----	-----	26.9	-----
057	0.063	-----	-----	-----	-----	27.0	-----
045	0.050	2.074	-----	-----	-----	27.1	0.000
037	0.042	-----	-----	-----	-----	27.1	-----
033	0.037	-----	-----	-----	-----	27.0	-----
030	0.034	-----	-----	-----	-----	26.9	-----
027	0.031	2.016	-----	0.0091	0.0039	26.8	0.002
026	0.031	-----	-----	-----	-----	26.4	-----

ANE N 1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
.65	0.004	0.004	0.0004	0.0090	0.0002	0.0058	0.0061
---	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
---	-----	0.004	0.0004	-----	0.0001	-----	0.0058

2

ITC-754
NAPHTHALENE-NOX + TRACERS
1984-FEBUARY-29

NOTES

A PEAKS ON THE BACK SIDE OF ENORMOUS INTERFERENCE PEAK.
B FLAME OUT.

ITC-757
NOX-AIR IRRADIATION
1984-MARCH-1

0645: BEGIN WET FLUSH.
0820: STOP FLUSH. R.H. ~50% @ 80 F.
76 F DRY BULB
66 F WET BULB
0853: INJECTIONS: 1.78 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0915: 70% LIGHTS.
1115: DUMP BAG.
1600: START BAG FLUSH.
1635: LIGHTS ON.
1730: END FLUSH. LIGHTS OFF.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.3	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.204	PPM
NO2-UNC	C-1600B	0.051	PPM
N-C4	DMS-1	0.0100	PPM
PROPENE	DMS-1	0.0117	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC FID
2100	PN-1	RH-1211 POROPAK-N GC FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-400 GC FID
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	BASIS: 3378 OZONE MONITOR

ITC-757
NOX-AIR IRRADIATION
1984-MARCH-1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3 DMS-1
1 823	-52	-----	-----	-----	-----	0.0003	0.0019	-----
1 845	-30	0.000	0.000	0.005	0.006	-----	-----	-----
1 858	-17	-----	-----	-----	-----	0.0097	0.0115	-0.10
1 900	-15	0.000	0.206	0.051	0.256	-----	-----	-----
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.000	0.204	0.051	0.254	0.0100	0.0117	-0.08
1 930	15	0.000	0.201	0.058	0.258	0.0100	0.0112	-0.04
1 945	30	0.000	0.191	0.065	0.256	0.0099	0.0099	0.07
1 1000	45	0.003	0.183	0.075	0.257	0.0095	0.0085	0.17
1 1015	60	0.009	0.176	0.078	0.253	0.0095	0.0077	0.27
1 1030	75	0.012	0.168	0.083	0.250	0.0094	0.0069	0.37
1 1045	90	0.004	0.160	0.089	0.248	0.0095	0.0064	0.46
1 1100	105	0.010	0.153	0.093	0.245	0.0090	0.0055	0.55
1 1105	110	-----	-----	-----	-----	-----	-----	-----
1 1115	120	0.010	0.147	0.096	0.242	0.0089	0.0049	0.66

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPH ECD-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4 PPH DMS-1
1 823	-52	0.000	1.51	0.007	0.005	0.0005	0.0128	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

IC	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3= DMS-1	T DEG C ANA-TEMP	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600
--	0.0003	0.0019	-----	-----	-----	0.0006	0.0009
06	-----	-----	-----	-----	-----	-----	-----
--	0.0097	0.0115	-0.1037	-----	-----	-----	-----
56	-----	-----	-----	-----	-----	-----	-----
--	-----	-----	-----	-----	0.004	-----	-----
54	0.0100	0.0117	-0.0841	-----	-----	-----	-----
58	0.0100	0.0112	-0.0478	26.6	-----	-----	-----
56	0.0099	0.0099	0.0736	27.1	-----	-----	-----
57	0.0095	0.0085	0.1776	27.5	-----	-----	-----
53	0.0095	0.0077	0.2749	27.4	-----	-----	-----
50	0.0094	0.0069	0.3798	27.5	-----	-----	-----
48	0.0095	0.0064	0.4650	27.7	-----	-----	-----
45	0.0090	0.0055	0.5593	27.6	-----	-----	-----
--	-----	-----	-----	-----	0.006	-----	-----
42	0.0089	0.0049	0.6680	27.0	-----	-----	-----

INE	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
05	0.0005	0.0128	0.0002	0.0063	0.0067

2

ITC-759
PROPENE - NOX
1984-MARCH-2

0430: BEGIN WET FLUSH WITH LIGHTS.

0700: LIGHTS OFF.

0812: R.H. 52% @ 80 F.

DRY BULB 79 F

WET BULB 66.5 F

0820: STOP FLUSH.

0848: INJECTIONS: 3.56 ML NO

0.64 ML NO2

6.4 ML PROPENE

1515: DUMP BAG.

1600: FLUSH UNTIL 1730.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.8	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.411	PPH
NO2-UNC	C-1600B	0.149	PPH
PROPENE	DHS-1	1.020	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2920	10'C-400	RH-121; 10' 10% CARBOWAX-400 GC; FID
2200	DHS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2100	PM-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1424	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11504A
3378	B-3378	BASIDI 3378 OZONE MONITOR

ITC-759
PROPENE - NOX
1984-MARCH-2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	PROPENE PPH DMS-1	PAN PPH ECD
1 822	-38	-----	-----	-----	-----	-----	0.002	0.0
1 845	-15	0.000	0.000	0.003	0.001	-----	-----	-----
1 847	-13	-----	-----	-----	-----	-----	0.962	-----
1 900	0	0.003	0.411	0.149	0.558	-----	1.020	0.0
1 905	5	-----	-----	-----	-----	-----	-----	-----
1 915	15	0.010	0.327	0.230	0.556	26.9	-----	-----
1 930	30	0.005	0.246	0.302	0.546	27.0	-----	-----
1 945	45	0.013	0.174	0.360	0.532	26.5	-----	-----
1 1000	60	0.031	0.110	0.412	0.521	26.2	-----	-----
1 1015	75	0.050	0.064	0.449	0.512	26.4	-----	-----
1 1030	90	0.091	0.031	0.461	0.491	26.9	-----	-----
1 1045	105	0.155	0.015	0.460	0.474	26.9	-----	-----
1 1100	120	0.249	0.007	0.449	0.455	27.0	-----	-----
1 1115	135	0.330	0.004	0.429	0.432	27.1	-----	-----
1 1130	150	0.402	0.002	0.412	0.412	27.1	-----	-----
1 1145	165	0.470	0.001	0.395	0.395	27.2	-----	-----
1 1200	180	0.531	0.000	0.379	0.378	27.3	-----	-----
1 1215	195	0.575	0.000	0.366	0.364	27.3	-----	-----
1 1230	210	0.614	0.000	0.356	0.354	26.9	-----	-----
1 1245	225	0.651	0.000	0.346	0.343	26.6	-----	-----
1 1300	240	0.678	0.000	0.337	0.335	26.6	-----	-----
1 1315	255	0.711	0.000	0.330	0.327	26.6	-----	-----
1 1330	270	0.731	0.000	0.323	0.321	26.6	-----	-----
1 1345	285	0.749	0.000	0.318	0.316	26.6	-----	-----
1 1400	300	0.761	0.000	0.312	0.310	26.6	-----	-----
1 1415	315	0.773	0.000	0.309	0.307	26.5	-----	-----
1 1430	330	0.788	0.000	0.307	0.304	26.6	-----	-----
1 1445	345	0.792	0.000	0.305	0.302	26.6	-----	-----
1 1500	360	0.800	-----	-----	-----	-----	0.014	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4 PPH DMS-1
1 822	-38	1.84	0.007	0.004	0.0003	0.0004	0.0068	0.0

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC PM	T DEG C ANA-TEMP	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600
600B							
		0.002	0.000		0.0009	0.0010	
.001		0.962					
.558		1.020	0.000		0.0006	0.0007	
				0.018			
.556	26.9						
.546	27.0						
.532	26.5						
.521	26.2						
.512	26.4						
.491	26.9						
.474	26.9						
.455	27.0						
.432	27.1						
.412	27.1						
.395	27.2						
.378	27.3						
.364	27.3						
.354	26.9						
.343	26.6						
.335	26.6						
.327	26.6						
.321	26.6						
.316	26.6						
.310	26.6						
.307	26.5			0.139			
.304	26.6						
.302	26.6						
		0.014	0.350		0.1379	0.0126	0.0062
C4 PPH IS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1		
0003	0.0004	0.0068	0.0002	0.0090	0.0094		

ITC-760
NOX-AIR IRRADIATION
1984-MARCH-5

0645: BEGIN WET FLUSH.
0822: FLUSH OFF. R.H. ~50% @ 80 F.
WET BULB 65 F
DRY BULB 75 F
0849: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0915: 70% LIGHTS.
1115: DUMP BAG.
1145: FLUSH STARTED.
1330: STOPPED FLUSH.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.424	PPM
NO2-UNC	C-1600B	0.132	PPM
N-C4	DMS-1	0.0100	PPM
PROPENE	DMS-1	0.0123	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RH-1211 POROPAK-N GC: FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC: ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC: FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC: FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-760
NOX-AIR IRRADIATION
1984-MARCH-5

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4
1 823	-52	-----	-----	-----	-----	0.0002	0.0019	--
1 845	-30	0.000	0.000	0.003	0.001	-----	-----	--
1 853	-22	-----	-----	-----	-----	0.0096	0.0117	-0.
1 900	-15	0.003	0.434	0.131	0.564	-----	-----	--
1 905	-10	-----	-----	-----	-----	-----	-----	--
1 915	0	0.009	0.424	0.132	0.555	0.0100	0.0123	-0.
1 930	15	-----	0.418	0.135	0.552	0.0098	0.0113	-0.
1 945	30	0.012	0.409	0.138	0.546	0.0095	0.0105	-0.
1 1000	45	0.006	0.404	0.135	0.538	0.0097	0.0104	-0.
1 1015	60	0.005	0.400	0.136	0.534	0.0095	0.0099	0.
1 1030	75	0.005	0.396	0.131	0.526	0.0096	0.0096	0.
1 1045	90	0.006	0.390	0.138	0.527	0.0096	0.0094	0.
1 1100	105	0.005	0.388	0.137	0.523	0.0094	0.0086	0.
1 1105	110	-----	-----	-----	-----	-----	-----	--
1 1115	120	0.011	0.383	0.141	0.523	0.0094	0.0083	0.
1 1130	135	0.006	0.378	0.144	0.521	-----	-----	--

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I- P DM
1 823	-52	0.000	1.45	0.010	0.004	0.0005	0.0100	0.

----- NO DATA TAKEN

27-JUL-84

PAGE 2

UNC PM	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3=	T DEG C ANA-TEMP	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600
000	0.0002	0.0019	-----	-----	-----	0.0006	0.0004
001	0.0096	0.0117	-0.1301	-----	-----	-----	-----
564	-----	-----	-----	-----	0.008	-----	-----
555	0.0100	0.0123	-0.1359	-----	-----	-----	-----
552	0.0098	0.0113	-0.0815	26.3	-----	-----	-----
546	0.0095	0.0105	-0.0391	26.8	-----	-----	-----
538	0.0097	0.0104	-0.0091	27.2	-----	-----	-----
534	0.0095	0.0099	0.0335	26.6	-----	-----	-----
526	0.0096	0.0096	0.0679	26.7	-----	-----	-----
527	0.0096	0.0094	0.0819	26.9	-----	-----	-----
523	0.0094	0.0086	0.1499	26.9	-----	-----	-----
	-----	-----	-----	-----	0.004	-----	-----
523	0.0094	0.0083	0.1874	27.3	-----	-----	-----
521	-----	-----	-----	27.3	-----	-----	-----
PANE PM	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4=	ACETYLEN	ACETYLEN		
S-1			PPH DMS-1	PPH DMS-1	PPH PN-1		
004	0.0005	0.0100	0.0002	0.0080	0.0082		

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ITC-761
NOX-AIR + N-OCTANE
1984 MARCH 6

0645: WET FLUSH ON.
0813: STOP FLUSH. R.H. ~50% @ 80 F.
67 F WET BULB
80 F DRY BULB
0845: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0915: 70% LIGHTS.
1115: INJECT 425 MICRO L N-OCTANE.
1615: DUMP BAG AND FLUSH UNTIL 1800.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.7	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.415	PPM
NO2-UNC	C-1600B	0.112	PPM
N-C4	DMS-1	0.0101	PPM
PROPENE	DMS-1	0.0120	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC FID
2100	PM-1	RH-1211 POROPAK-N GC FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC ECD
1400	C-20M	RH-1211 C-20M/DC-703 GC FID
2920	10'C-400	RH-1211 10' 10% CARBOWAX-400 GC FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-761
NOX-AIR + N-OCTANE
1984 MARCH 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX- PP T 14
1 818	-57	-----	-----	-----	-----	-----	-----	---
1 845	-30	0.011	0.000	-----	0.004	-----	0.001	---
1 848	-27	-----	-----	-----	-----	-----	-----	---
1 900	-15	0.011	0.417	-----	0.112	-----	0.528	---
1 915	0	0.012	0.415	-----	0.112	-----	0.526	---
1 930	15	0.006	0.411	-----	0.115	-----	0.525	---
1 945	30	0.006	0.407	-----	0.118	-----	0.524	---
1 1000	45	0.005	0.402	-----	0.123	-----	0.523	---
1 1015	60	0.005	0.402	-----	0.117	-----	0.517	---
1 1030	75	0.006	0.396	-----	0.124	-----	0.518	---
1 1045	90	0.006	0.391	-----	0.136	-----	0.525	---
1 1100	105	0.006	0.388	-----	0.132	-----	0.519	---
1 1115	120	0.005	0.385	-----	0.130	-----	0.514	---
1 1125	130	-----	-----	-----	-----	-----	-----	---
1 1130	135	0.005	0.363	-----	0.0128	-----	0.3738	---
1 1145	150	0.005	0.348	-----	0.027	-----	0.373	---
1 1200	165	0.011	0.335	-----	0.039	-----	0.373	---
1 1215	180	0.006	0.317	-----	0.054	-----	0.370	0
1 1230	195	0.011	0.305	0.315	0.069	0.210	0.373	0
1 1245	210	0.011	0.289	0.303	0.083	0.221	0.371	0
1 1300	225	0.011	0.277	0.291	0.095	0.235	0.371	0
1 1315	240	0.011	0.261	0.281	0.110	0.247	0.370	0
1 1330	255	0.012	0.246	0.266	0.126	0.261	0.372	0
1 1345	270	0.013	0.232	0.254	0.138	0.275	0.369	0
1 1400	285	0.012	0.219	0.239	0.148	0.291	0.367	0
1 1415	300	0.012	0.204	0.225	0.164	0.315	0.367	0
1 1430	315	0.014	0.191	0.212	0.178	0.326	0.368	0
1 1445	330	0.019	0.178	0.198	0.187	0.337	0.364	0
1 1500	345	0.020	0.164	0.185	0.203	0.349	0.367	0
1 1515	360	0.020	0.151	0.173	0.219	0.361	0.369	0
1 1530	375	0.015	0.138	0.159	0.232	0.373	0.369	0
1 1545	390	0.015	0.124	0.146	0.244	0.388	0.367	0
1 1600	405	0.022	0.114	0.134	0.253	0.398	0.366	0
1 1615	420	0.030	0.101	0.121	0.266	0.412	0.366	0

27-JUL-84
 PAGE 2

2-UNC PPH 1600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-UNC PPH T 14B-1	T DEG C ANA-TEMP	N-CB PPH C-20M	LNC4/C3-	N-C4 PPH DMS-1
-----	-----	-----	-----	-----	-----	-----	0.0003
0.004	-----	0.001	-----	26.4	-----	-----	-----
-----	-----	-----	-----	-----	-----	-0.1108	0.0101
0.112	-----	0.528	-----	26.5	-----	-----	-----
0.112	-----	0.526	-----	26.6	-----	-0.1001	0.0101
0.115	-----	0.525	-----	26.8	-----	-0.0642	0.0100
0.118	-----	0.524	-----	27.2	-----	-0.0436	0.0101
0.123	-----	0.523	-----	26.8	-----	-0.0086	0.0101
0.117	-----	0.517	-----	26.5	-----	0.0261	0.0098
0.124	-----	0.518	-----	26.8	-----	0.0615	0.0099
0.136	-----	0.525	-----	27.1	-----	0.0980	0.0098
0.132	-----	0.519	-----	27.0	-----	0.1386	0.0092
0.130	-----	0.514	-----	27.0	0.000	0.1589	0.0092
-----	-----	-----	-----	-----	9.395	-----	-----
0.012B	-----	0.373B	-----	26.6	-----	0.1708	0.0095
0.027	-----	0.373	-----	26.6	-----	0.1659	0.0095
0.039	-----	0.373	-----	26.7	-----	0.1697	0.0093
0.054	-----	0.370	0.000	26.7	9.561	0.1667	0.0099
0.069	0.210	0.373	0.522	26.9	-----	0.1802	0.0097
0.083	0.221	0.371	0.521	26.7	-----	0.1765	0.0095
0.095	0.235	0.371	0.524	26.7	-----	0.1844	0.0095
0.110	0.247	0.370	0.525	26.8	9.561	0.1920	0.0096
0.126	0.261	0.372	0.525	26.7	-----	0.2221	0.0095
0.138	0.275	0.369	0.527	26.7	-----	0.1984	0.0096
0.148	0.291	0.367	0.527	26.7	-----	0.2215	0.0093
0.164	0.315	0.367	0.537	26.8	9.485	0.2208	0.0094
0.178	0.326	0.368	0.535	26.7	-----	0.2238	0.0097
0.187	0.337	0.364	0.531	26.6	-----	0.2193	0.0097
0.203	0.349	0.367	0.529	26.7	-----	0.2235	0.0094
0.219	0.361	0.369	0.529	26.8	9.485	0.2524	0.0097
0.232	0.373	0.369	0.528	26.7	-----	-----	-----A
0.244	0.388	0.367	0.528	26.6	-----	-----	-----
0.253	0.398	0.366	0.528	26.7	-----	-----	-----
0.266	0.412	0.366	0.529	26.8	9.410	-----	-----

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ITC-761
NOX-AIR + N-OCTANE
1984 MARCH 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METH PPH PN-
1 818	-57	0.0018	0.000	-----	0.0027	0.0003	0.0003	1
1 848	-27	0.0120	-----	-----	-----	-----	-----	-----
1 905	-10	-----	-----	0.000	-----	-----	-----	-----
1 915	0	0.0120	-----	-----	-----	-----	-----	-----
1 930	15	0.0115	-----	-----	-----	-----	-----	-----
1 945	30	0.0113	-----	-----	-----	-----	-----	-----
1 1000	45	0.0109	-----	-----	-----	-----	-----	-----
1 1015	60	0.0102	-----	-----	-----	-----	-----	-----
1 1030	75	0.0100	-----	-----	-----	-----	-----	-----
1 1045	90	0.0095	-----	-----	-----	-----	-----	-----
1 1100	105	0.0086	-----	-----	-----	-----	-----	-----
1 1115	120	0.0084	0.000	-----	0.0047	0.0006	0.0004	-----
1 1130	135	0.0086	-----	-----	-----	-----	-----	-----
1 1145	150	0.0086	-----	-----	-----	-----	-----	-----
1 1200	165	0.0084	-----	-----	-----	-----	-----	-----
1 1215	180	0.0090	0.000	0.000	0.0041	0.0007	0.0006	-----
1 1230	195	0.0086	-----	-----	-----	-----	-----	-----
1 1245	210	0.0085	-----	-----	-----	-----	-----	-----
1 1300	225	0.0085	-----	-----	-----	-----	-----	-----
1 1315	240	0.0085	0.000	0.002	0.0043	0.0011	0.0006	-----
1 1330	255	0.0081	-----	-----	-----	-----	-----	-----
1 1345	270	0.0085	-----	-----	-----	-----	-----	-----
1 1400	285	0.0080	-----	-----	-----	-----	-----	-----
1 1415	300	0.0081	0.000	0.000	0.0250	0.0027	0.0007	-----
1 1430	315	0.0083	-----	-----	-----	-----	-----	-----
1 1445	330	0.0083	-----	-----	-----	-----	-----	-----
1 1500	345	0.0081	-----	-----	-----	-----	-----	-----
1 1515	360	0.0081	0.000	0.000	-----	-----	-----	-----
1 1530	375	-----A	-----	-----	-----	-----	-----	-----
1 1615	420	-----	0.000	-----	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH DMS-1
1 818	-57	0.0045
----- NO DATA TAKEN		

ITC-761
NOX-AIR + N-OCTANE
1984 MARCH 6

NOTES

- A NO MORE SAMPLES TAKEN ON THE DHS BECAUSE OF N-OCTANE INTERFERENCE.
- B N-OCTANE APPARENTLY AFFECTS NO2 AND NOX MEASUREMENTS ON THE C-1600B.

ITC-762
NOX-AIR + N-OCTANE
1984 MARCH 7

0645: WET FLUSH ON.
0816: STOP FLUSH. R.H. 50% @ 80 F.
77 F DRY BULB
65.5 F WET BULB
0846: INJECTIONS: 1.58 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0901: SUPPLEMENT: 0.35 ML NO
0915: 70% LIGHTS.
1117: INJECT 425 MICRO L N-OCTANE.
1117-1125: INSTRUMENTS OFF ITC DURING INJECTION.
1650: DUMP BAG AND FLUSH UNTIL 1800.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.4	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.208	PPM
NO	T 14B-1	0.219	PPM
NO2-UNC	C-1600B	0.055	PPM
NO2-UNC	T 14B-1	0.064	PPM
N-C4	DMS-1	0.0113	PPM
PROPENE	DMS-1	0.0121	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-1211 POROPAK-N GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
1400	C-20H	RH-1211 C-20H/DC-703 GC; FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	B-3378	BASIDI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11306A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

2

ITC-762
NOX-AIR + N-OCTANE
1984 MARCH 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO PPH T 14B-1	NO2-UNC PPH C-1600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-U PPH T 14B
1 818	-57	-----	-----	-----	-----	-----	-----	-----
1 845	-30	0.011	0.000	0.001	0.005	0.001	0.001	0.0
1 849	-26	-----	-----	-----	-----	-----	-----	-----
1 900	-15	0.006	0.161	0.175	0.052	0.064	0.213	0.2
1 915	0	0.005	0.208	0.219	0.055	0.064	0.263	0.2
1 930	15	0.011	0.207	0.218	0.056	0.067	0.262	0.2
1 945	30	0.005	0.201	0.214	0.061	0.073	0.261	0.2
1 1000	45	0.005	0.198	0.214	0.064	0.074	0.261	0.2
1 1015	60	0.006	0.194	0.211	0.066	0.077	0.259	0.2
1 1030	75	0.006	0.191	0.208	0.068	0.082	0.258	0.2
1 1045	90	0.006	0.185	0.205	0.072	0.083	0.257	0.2
1 1100	105	0.012	0.183	0.200	0.073	0.087	0.256	0.2
1 1115	120	0.012	0.179	0.197	0.077	0.088	0.256	0.2
1 1125	130	-----	-----	-----	-----	-----	-----	-----
1 1130	135	0.009	0.165	0.181	0.026	0.106	0.191	0.2
1 1145	150	0.006	0.154	0.169	0.037	0.117	0.191	0.2
1 1200	165	0.014	0.143	0.159	0.047	0.127	0.190	0.2
1 1215	180	0.019	0.132	0.149	0.059	0.138	0.190	0.2
1 1230	195	0.022	0.121	0.139	0.067	0.148	0.187	0.2
1 1245	210	0.020	0.111	0.129	0.078	0.158	0.189	0.2
1 1300	225	0.015	0.102	0.120	0.088	0.170	0.189	0.2
1 1315	240	0.015	0.090	0.111	0.099	0.177	0.189	0.2
1 1330	255	0.024	0.081	0.101	0.108	0.190	0.189	0.2
1 1345	270	0.030	0.072	0.090	0.118	0.200	0.190	0.2
1 1400	285	0.031	0.063	0.080	0.126	0.210	0.188	0.2
1 1415	300	0.039	0.056	0.072	0.133	0.219	0.188	0.2
1 1430	315	0.041	0.047	0.064	0.141	0.229	0.187	0.2
1 1445	330	0.050	0.042	0.057	0.146	0.236	0.187	0.2
1 1500	345	0.058	0.035	0.048	0.153	0.226	0.188	0.2
1 1515	360	0.069	0.030	0.043	0.158	0.232	0.187	0.2
1 1530	375	0.074	0.023	0.038	0.165	0.237	0.188	0.2
1 1545	390	0.089	0.020	0.034	0.166	0.242	0.185	0.2
1 1600	405	0.100	0.018	0.031	0.168	0.245	0.185	0.2
1 1615	420	0.106	0.015	0.028	0.171	0.248	0.186	0.2

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PAGE 2

-UNC PM 600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-UNC PPH T 14B-1	T DEB C ANA-TEMP	N-CB PPH C-20H	LNC4/C3=	N-C4 PPH DMS-1
-----	-----	-----	-----	-----	-----	-----	0.0004
.005	0.001	0.001	0.001	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	0.0023	0.0108
.052	0.064	0.213	0.237	-----	-----	-----	-----
.055	0.064	0.263	0.281	-----	-----	0.0033	0.0113
.056	0.067	0.262	0.283	26.8	-----	0.0475	0.0111
.061	0.073	0.261	0.285	26.7	-----	0.0777	0.0111
.064	0.074	0.261	0.286	26.7	-----	0.1302	0.0109
.066	0.077	0.259	0.286	26.8	-----	0.1784	0.0110
.068	0.082	0.258	0.288	27.0	-----	0.2048	0.0107
.072	0.083	0.257	0.286	26.9	-----	0.2683	0.0109
.073	0.087	0.256	0.285	27.1	-----	0.3067	0.0107
.077	0.088	0.256	0.283	27.1	0.012	0.3533	0.0106
-----	-----	-----	-----	-----	9.334	-----	-----
.026	0.106	0.191	0.284	27.0	-----	0.3577	0.0107
.037	0.117	0.191	0.284	27.1	-----	0.3569	0.0100
.047	0.127	0.190	0.284	27.2	-----	0.3594	0.0105
.059	0.138	0.190	0.286	27.1	9.425	0.3634	0.0105
.067	0.148	0.187	0.285	27.1	-----	0.3760	0.0107
.078	0.158	0.189	0.286	27.1	-----	0.3693	0.0106
.088	0.170	0.189	0.287	27.2	-----	0.3778	0.0105
.099	0.177	0.189	0.286	27.3	9.395	0.3977	0.0105
.108	0.190	0.189	0.288	27.6	-----	0.3868	0.0107
.118	0.200	0.190	0.288	27.7	-----	0.4085	0.0105
.126	0.210	0.188	0.289	27.8	-----	0.4049	0.0103
.133	0.219	0.188	0.289	27.9	9.304	0.4147	0.0103
.141	0.229	0.187	0.291	27.9	-----	0.3977	0.0104
.146	0.236	0.187	0.292	28.0	-----	0.4522	0.0105
.153	0.226	0.188	0.273	28.0	-----	0.4568	0.0104
.158	0.232	0.187	0.273	28.1	9.259	-----	-----
.145	0.237	0.188	0.273	28.2	-----	-----	-----
.146	0.242	0.185	0.274	28.0	-----	-----	-----
.148	0.245	0.185	0.274	27.4	-----	-----	-----
.171	0.248	0.186	0.273	27.2	9.198	-----	-----

ITC-762
NOX-AIR + N-OCTANE
1984 MARCH 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600	METH PP PN-
1 818	-57	0.0004	0.000	-----	0.0014	0.0010	-----	1
1 849	-26	0.0115	-----	-----	-----	-----	-----	---
1 910	-5	-----	-----	0.008	-----	-----	-----	---
1 915	0	0.0121	-----	-----	-----	-----	-----	---
1 930	15	0.0113	-----	-----	-----	-----	-----	---
1 945	30	0.0110	-----	-----	-----	-----	-----	---
1 1000	45	0.0102	-----	-----	-----	-----	-----	---
1 1015	60	0.0098	-----	-----	-----	-----	-----	---
1 1030	75	0.0093	-----	-----	-----	-----	-----	---
1 1045	90	0.0089	-----	-----	-----	-----	-----	---
1 1100	105	0.0084	-----	-----	-----	-----	-----	---
1 1115	120	0.0079	0.000	-----	0.0034	0.0002	0.0004	---
1 1130	135	0.0080	-----	-----	-----	-----	-----	---
1 1145	150	0.0075	-----	-----	-----	-----	-----	---
1 1200	165	0.0079	-----	-----	-----	-----	-----	---
1 1215	180	0.0078	0.000	0.004	0.0031	0.0004	0.0003	---
1 1230	195	0.0079	-----	-----	-----	-----	-----	---
1 1245	210	0.0078	-----	-----	-----	-----	-----	---
1 1300	225	0.0077	-----	-----	-----	-----	-----	---
1 1315	240	0.0076	0.000	-----	0.0040	0.0009	0.0007	---
1 1330	255	0.0077	-----	-----	-----	-----	-----	---
1 1345	270	0.0075	-----	-----	-----	-----	-----	---
1 1400	285	0.0074	-----	-----	-----	-----	-----	---
1 1415	300	0.0073	0.000	0.006	-----	-----	-----	---
1 1430	315	0.0075	-----	-----	-----	-----	-----	---
1 1445	330	0.0071	-----	-----	-----	-----	-----	---
1 1500	345	0.0071	-----	-----	-----	-----	-----	---
1 1515	360	-----A	0.000	0.000	-----	-----	-----	---
1 1615	420	-----	0.000	-----	0.0081	0.0038	-----B	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 818	-57	0.0002	0.0068	0.0075

----- NO DATA TAKEN

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PAGE 3

TALD PM -600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1
0014	0.0010	-----	1.59	0.007	0.005	0.0005	0.0064
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-----	-----	-----	-----	-----	-----	-----	-----
0034	0.0002	0.0004	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0031	0.0004	0.0003	-----	-----	-----	-----	-----
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-----	-----	-----	-----	-----	-----	-----	-----
0040	0.0009	0.0007	-----	-----	-----	-----	-----
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0081	0.0038	-----B	-----	-----	-----	-----	-----

ITC-762
NOX-AIR + N-OCTANE
1984 MARCH 7

NOTES

- A STOPPED SAMPLING DUE TO N-OCTANE INTERFERENCE.
- B INTERFERED WITH PREVIOUS CALIBRATION SAMPLE.

ITC-763
NOX-AIR + N-OCTANE
1984 MARCH 8

0818: STOP FLUSH. R.H. 50% @ 80 F.
65 F WET BULB
75 F DRY BULB
0858: INJECTIONS: 1.58 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0912: SUPPLEMENT: 04 ML NO
0915: 70% LIGHTS.
1116: INJECT 42.5 MICRO L N-OCTANE.
1116-1126: INSTRUMENTS OFF ITC.
1636: DUMP BAG AND FLUSH UNTIL 1800.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.7	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.230	PPM
NO	T 14B-1	0.215	PPM
NO2-UNC	C-1600B	0.047	PPM
NO2-UNC	T 14B-1	0.044	PPM
N-C4	DMS-1	0.0105	PPM
PROPENE	DMS-1	0.0119	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RH-1211 DINETHYLSULFOLANE GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
1400	C-20H	RH-1211 C-20H/DC-703 GC1 FID
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIDI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-763
NOX-AIR + N-OCTANE
1984 MARCH 8

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO PPH T 14B-1	NO2-UNC PPH C-1600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX P T 1
1 817	-58	-----	-----	-----	-----	-----	-----	---
1 845	-30	0.006	0.000	-----	0.010	-----	0.002	--
1 900	-15	0.011	0.241	-----	0.014	-----	0.255	--
1 902	-13	-----	-----	-----	-----	-----	-----	---
1 915	0	0.005	0.230	0.215	0.047	0.044	0.277	0
1 930	15	0.005	0.228	0.220	0.054	0.055	0.281	0
1 945	30	0.010	0.223	0.217	0.057	0.060	0.280	0
1 1000	45	0.011	0.218	0.215	0.060	0.061	0.277	0
1 1015	60	0.005	0.214	0.210	0.059	0.065	0.274	0
1 1030	75	0.006	0.211	0.207	0.073	0.069	0.284	0
1 1045	90	0.005	0.209	0.204	0.070	0.070	0.279	0
1 1100	105	0.006	0.204	0.201	0.074	0.073	0.277	0
1 1115	120	0.006	0.199	0.198	0.077	0.074	0.276	0
1 1125	130	-----	-----	-----	-----	-----	-----	---
1 1130	135	0.001	0.184	0.185	0.089	0.087	0.272	0
1 1145	150	0.012	0.176	0.178	0.097	0.093	0.272	0
1 1200	165	0.011	0.166	0.172	0.105	0.098	0.270	0
1 1215	180	0.013	0.159	0.165	0.111	0.107	0.269	0
1 1230	195	0.010	0.151	0.157	0.117	0.113	0.267	0
1 1245	210	0.014	0.145	0.149	0.125	0.122	0.268	0
1 1300	225	0.019	0.137	0.144	0.131	0.128	0.267	0
1 1315	240	0.021	0.130	0.137	0.137	0.135	0.267	0
1 1330	255	0.020	0.124	0.131	0.144	0.139	0.267	0
1 1345	270	0.015	0.115	0.126	0.150	0.146	0.265	0
1 1400	285	0.015	0.110	0.121	0.156	0.152	0.265	0
1 1415	300	0.016	0.103	0.114	0.163	0.159	0.265	0
1 1430	315	0.021	0.097	0.108	0.166	0.166	0.263	0
1 1445	330	0.022	0.090	0.103	0.174	0.171	0.264	0
1 1500	345	0.024	0.084	0.096	0.177	0.176	0.260	0
1 1515	360	0.030	0.079	0.092	0.186	0.181	0.264	0
1 1530	375	0.032	0.073	0.086	0.191	0.188	0.263	0
1 1545	390	0.032	0.069	0.081	0.194	0.191	0.262	0
1 1600	405	0.033	0.064	0.076	0.198	0.196	0.261	0
1 1615	420	0.039	0.059	0.071	0.204	0.200	0.262	0
1 1630	435	0.041	0.055	0.066	0.204	0.204	0.257	0

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PAGE 2

UNC M 000B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-UNC PPH T 14B-1	T DEG C ANA-TEMP	N-CB PPH C-20M	LNC4/C3=	N-C4 PPH DMS-1
					0.024		0.0003
010		0.002					
014		0.255				-0.0731	0.0106
						-0.0556	0.0105
047	0.044	0.277	0.257			-0.0380	0.0104
054	0.055	0.281	0.274	25.9		0.0073	0.0104
057	0.060	0.280	0.275	26.0		0.0366	0.0101
060	0.061	0.277	0.274	26.0		0.0913	0.0101
059	0.065	0.274	0.273	26.2		0.1603	0.0098
073	0.069	0.284	0.274	26.4		0.1821	0.0100
070	0.070	0.279	0.272	26.5		0.2316	0.0100
074	0.073	0.277	0.273	26.3		0.2902	0.0101
077	0.074	0.276	0.271	26.6	0.012		
						0.3061	0.0099
089	0.087	0.272	0.270	26.5		0.2772	0.0099
097	0.093	0.272	0.269	26.5		0.3297	0.0097
105	0.098	0.270	0.269	26.6	0.955	0.3275	0.0098
111	0.107	0.269	0.270	26.5		0.3349	0.0098
117	0.113	0.267	0.269	26.6		0.3547	0.0098
125	0.122	0.268	0.269	26.5		0.3567	0.0098
131	0.128	0.267	0.271	26.5		0.3798	0.0099
137	0.135	0.267	0.271	26.4	0.940	0.3798	0.0099
144	0.139	0.267	0.269	26.8		0.4119	0.0098
150	0.146	0.265	0.271	27.1		0.4075	0.0092
156	0.152	0.265	0.272	27.2		0.4312	0.0096
163	0.159	0.265	0.271	27.3	0.921	0.4400	0.0096
166	0.166	0.263	0.273	27.5		0.4518	0.0097
174	0.171	0.264	0.272	27.6		0.4633	0.0093
177	0.176	0.260	0.272	27.6			
186	0.181	0.264	0.271	27.0	0.910		
191	0.188	0.263	0.272	26.8			
194	0.191	0.262	0.270	26.8			
198	0.196	0.261	0.271	26.7			
204	0.200	0.262	0.269	26.6	0.895		
204	0.204	0.257	0.268	26.6			

ITC-763
NOX-AIR + N-OCTANE
1984 MARCH 8

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPENE PPH DMS-1	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	ME PPH 10'C-600
1 817	-58	0.0020	0.000	-----	0.0004	-----	-----	-----
1 902	-13	0.0122	-----	-----	-----	-----	-----	-----
1 910	-5	-----	-----	0.010	-----	-----	-----	-----
1 915	0	0.0119	-----	-----	-----	-----	-----	-----
1 930	15	0.0115	-----	-----	-----	-----	-----	-----
1 945	30	0.0111	-----	-----	-----	-----	-----	-----
1 1000	45	0.0104	-----	-----	-----	-----	-----	-----
1 1015	60	0.0098	-----	-----	-----	-----	-----	-----
1 1030	75	0.0090	-----	-----	-----	-----	-----	-----
1 1045	90	0.0089	-----	-----	-----	-----	-----	-----
1 1100	105	0.0085	-----	-----	-----	-----	-----	-----
1 1115	120	0.0081	0.000	-----	0.0048	0.0007	0.0006	-----
1 1130	135	0.0078	-----	-----	-----	-----	-----	-----
1 1145	150	0.0080	-----	-----	-----	-----	-----	-----
1 1200	165	0.0074	-----	-----	-----	-----	-----	-----
1 1215	180	0.0075	0.000	0.000	0.0045	0.0006	0.0004	-----
1 1230	195	0.0075	-----	-----	-----	-----	-----	-----
1 1245	210	0.0073	-----	-----	-----	-----	-----	-----
1 1300	225	0.0073	-----	-----	-----	-----	-----	-----
1 1315	240	0.0073	0.000	-----	0.0043	0.0007	0.0004	-----
1 1330	255	0.0072	-----	-----	-----	-----	-----	-----
1 1345	270	0.0070	-----	-----	-----	-----	-----	-----
1 1400	285	0.0066	-----	-----	-----	-----	-----	-----
1 1415	300	0.0067	0.000	0.000	0.0044	0.0010	0.0004	-----
1 1430	315	0.0066	-----	-----	-----	-----	-----	-----
1 1445	330	0.0066	-----	-----	-----	-----	-----	-----
1 1500	345	0.0062	-----	-----	-----	-----	-----	-----
1 1515	360	-----B	0.000	0.000	0.0049	0.0012	0.0005	-----
1 1615	420	-----	0.000	0.004	0.0065	0.0020	0.0006	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 817	-58	0.0050	0.0069	0.0075

----- NO DATA TAKEN

27-JUL-84
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TALD PH -600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1
0004	-----	-----	1.65	0.006	0.005	0.0005	0.0064
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0048	0.0007	0.0006	-----	-----	-----	-----	-----
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-----	-----	-----	-----	-----	-----	-----	-----
0045	0.0006	0.0004	-----	-----	-----	-----	-----
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-----	-----	-----	-----	-----	-----	-----	-----
0043	0.0007	0.0004	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0044	0.0010	0.0004	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0049	0.0012	0.0005	-----	-----	-----	-----	-----
0065	0.0020	0.0006	-----	-----	-----	-----	-----

ITC-763
NOX-AIR + N-OCTANE
1984 MARCH 8

NOTES

- A STOPPED CHART TOO SOON -- THOUGHT 'AIR' PEAK WAS N-OCTANE.
- B PEAKS INTERFERED WITH BY N-OCTANE.

ITC-765
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 12

0645: START WET FLUSH.
0820: STOP FLUSH. R.H. 50% @ 80 F.
73 F DRY BULB
65 F WET BULB
0857: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0915: 70% LIGHTS.
1115: INJECT 33 MICRO L METHYLCYCLOHEXANE THROUGH GLASS BULB.
INSTRUMENTS OFF DURING INJECTION.
1616: DUMP BAG AND FLUSH UNTIL 1800.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.1	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.359	PPM
NO2-UNC	C-1600B	0.147	PPM
N-C4	DMS-1	0.0102	PPM
PROPENE	DMS-1	0.0112	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
1400	C-20M	RM-1211 C-20M/DC-703 GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3000	CA	CHROMOTROPIC ACID NCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER1 SN11506A

ITC-745
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	MECYC-C6 PPM C-20M	LNC4/C3= DMS-1	N-C4 PPM DMS-
1 824	-51	-----	-----	-----	-----	0.000	-----	0.00
1 845	-30	0.011	0.000	0.001	0.001	-----	-----	-----
1 900	-15	0.008	0.388	0.078	0.465	-----	-----	-----
1 901	-14	-----	-----	-----	-----	-----	-0.0208	0.01
1 910	-5	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.006	0.359	0.147	0.505	-----	-0.0340	0.01
1 930	15	0.006	0.444	0.122	0.564	-----	0.0409	0.01
1 945	30	0.007	0.435	0.126	0.559	-----	0.0605	0.00
1 1000	45	0.006	0.426	0.129	0.554	-----	0.1242	0.00
1 1015	60	0.007	0.422	0.128	0.548	-----	0.1537	0.01
1 1030	75	0.021	0.415	0.128	0.542	-----	0.1841	0.01
1 1045	90	0.012	0.409	0.131	0.539	-----	0.2222	0.01
1 1100	105	0.014	0.405	0.129	0.533	-----	0.2711	0.01
1 1115	120	0.012	0.399	0.132	0.531	0.000	0.2956	0.01
1 1125	130	-----	-----	-----	-----	0.922	-----	-----
1 1130	135	0.012	0.383	0.145	0.527	-----	0.3036	0.01
1 1145	150	0.007	0.368	0.156	0.523	-----	0.3237	0.00
1 1200	165	0.013	0.354	0.170	0.523	-----	0.3312	0.01
1 1215	180	0.012	0.342	0.180	0.520	0.908	0.3392	0.01
1 1230	195	0.011	0.331	0.188	0.518	-----	0.3608	0.01
1 1245	210	0.013	0.319	0.196	0.513	-----	0.3704	0.01
1 1300	225	0.012	0.306	0.210	0.515	-----	0.3712	0.01
1 1315	240	0.014	0.298	0.215	0.512	0.894	-----	-----
1 1330	255	0.003	0.287	0.225	0.510	-----	-----	-----
1 1345	270	0.014	0.278	0.231	0.507	-----	-----	-----
1 1400	285	0.014	0.267	0.239	0.505	-----	-----	-----
1 1415	300	0.020	0.258	0.247	0.504	0.880	-----	-----
1 1430	315	0.014	0.250	0.256	0.505	-----	-----	-----
1 1445	330	0.020	0.240	0.264	0.502	-----	-----	-----
1 1500	345	0.021	0.231	0.269	0.499	-----	-----	-----
1 1515	360	0.022	0.223	0.278	0.500	0.866	-----	-----
1 1530	375	0.022	0.214	0.283	0.496	-----	-----	-----
1 1545	390	0.015	0.207	0.290	0.496	-----	-----	-----
1 1600	405	0.019	0.199	0.296	0.492	-----	-----	-----
1 1605	410	-----	-----	-----	-----	-----	-----	-----
1 1615	420	0.021	0.193	0.304	0.495	0.854	-----	-----

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NC	MECYC-C6 PPH C-20H	LNC4/C3= DMS-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA
--	0.000	-----	0.0003	0.0021	-----	0.000	-----
01	-----	-----	-----	-----	-----	-----	-----
65	-----	-----	-----	-----	-----	-----	-----
---	-----	-0.0208	0.0101	0.0111	-----	-----	0.018
---	-----	-----	-----	-----	-----	-----	-----
505	-----	-0.0340	0.0102	0.0112	-----	-----	-----
564	-----	0.0409	0.0100	0.0103	25.7	-----	-----
559	-----	0.0605	0.0098	0.0099	25.1	-----	-----
554	-----	0.1242	0.0098	0.0092	25.9	-----	-----
548	-----	0.1537	0.0101	0.0093	26.2	-----	-----
542	-----	0.1841	0.0102	0.0090	26.4	-----	-----
539	-----	0.2222	0.0102	0.0087	26.6	-----	-----
533	-----	0.2711	0.0103	0.0084	26.7	-----	-----
531	0.000	0.2956	0.0101	0.0081	26.8	0.000	-----
---	0.922	-----	-----	-----	-----	-----	-----
527	-----	0.3036	0.0101	0.0080	26.9	-----	-----
523	-----	0.3237	0.0099	0.0077	26.8	-----	-----
523	-----	0.3312	0.0100	0.0077	26.1	-----	-----
520	0.908	0.3392	0.0101	0.0077	26.1	0.000	0.008
518	-----	0.3608	0.0100	0.0075	26.0	-----	-----
513	-----	0.3704	0.0100	0.0074	25.9	-----	-----
515	-----	0.3712	0.0101	0.0074	25.9	-----	-----
512	0.894	-----	-----	-----	25.8	0.000	0.014
510	-----	-----	-----	-----	25.7	-----	-----
507	-----	-----	-----	-----	25.9	-----	-----
505	-----	-----	-----	-----	26.0	-----	-----
504	0.880	-----	-----	-----	25.9	0.000	0.006
505	-----	-----	-----	-----	25.9	-----	-----
502	-----	-----	-----	-----	25.9	-----	-----
199	-----	-----	-----	-----	26.0	-----	-----
500	0.866	-----	-----	-----	26.1	0.000	0.010
196	-----	-----	-----	-----	26.0	-----	-----
196	-----	-----	-----	-----	25.9	-----	-----
192	-----	-----	-----	-----	25.9	-----	-----
---	-----	-----	-----	-----	-----	-----	0.008
195	0.854	-----	-----	-----	26.1	0.000	-----

ITC-765
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1
1 824	-51	0.0008	0.0001	0.0001	1.58	0.010	0.005	0.000
1 1115	120	0.0036	0.0003	0.0005	-----	-----	-----	-----
1 1215	180	0.0033	0.0007	-----A	-----	-----	-----	-----
1 1315	240	0.0034	0.0007	-----A	-----	-----	-----	-----
1 1415	300	0.0038	0.0011	-----A	-----	-----	-----	-----
1 1515	360	0.0047	0.0015	-----A	-----	-----	-----	-----
1 1615	420	0.0050	0.0013	-----A	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 824	-51	0.0062	0.0058

----- NO DATA TAKEN

NOTES

- A METHYLCYCLOHEXANE INTERFERES WITH MEK.
- B NO MORE SAMPLES TAKEN BECAUSE OF INTERFERENCE FROM METHYLCYCLOHEXANE.

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PAGE 3

NE	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	N-C8 PPM C-20M	ETHENE PPM PN-1	I-C4= PPM DMS-1
58	0.010	0.005	0.0004	0.0016	0.0060	0.0003
---	---	---	---	0.0006	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---
---	---	---	---	---	---	---

CE FROM METHYLCYCLOHEXANE.

2

ITC-766
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 13

0645: START WET FLUSH.

0818: R.H. 50% @ 80 F.

78 F DRY BULB

66 F WET BULB

0850: INJECTIONS: 1.78 ML NO

0.64 ML NO2

0.064 ML PROPENE

0.064 ML N-BUTANE

0915: 70% LIGHTS.

1117: INJECT 332 MICRO L METHYLCYCLOHEXANE.

INSTRUMENTS OFF DURING INJECTION.

1618: DUMP BAG AND FLUSH UNTIL 1800.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.7	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.212	PPM
NO2-UNC	C-1600B	0.056	PPM
N-C4	DMS-1	0.0100	PPM
PROPENE	DMS-1	0.0119	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-766
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	MECYC-C6 PPM C-20M	LNC4/C3= DMS-1	N- P DM
1 823	-52	-----	-----	-----	-----	0.000	-----	0.
1 844	-31	-----	0.000	0.002	0.000	-----	-----	0.
1 853	-22	-----	-----	-----	-----	-----	-0.0849	0.
1 900	-15	0.006	0.000	0.002	0.000	-----	-----	0.
1 905	-10	-----	-----	-----	-----	-----	-----	0.
1 915	0	0.012	0.212	0.056	0.267	-----	-0.1086	0.
1 930	15	0.011	0.211	0.053	0.263	-----	-0.0740	0.
1 945	30	0.011	0.210	0.057	0.266	-----	-0.0295	0.
1 1000	45	0.011	0.205	0.060	0.265	-----	0.0246	0.
1 1015	60	0.010	0.205	0.059	0.264	-----	0.0732	0.
1 1030	75	0.006	0.202	0.063	0.264	-----	0.1121	0.
1 1045	90	0.010	0.198	0.063	0.261	-----	0.1565	0.
1 1100	105	0.012	0.195	0.066	0.261	-----	0.1949	0.
1 1115	120	0.013	0.193	0.069	0.261	0.000	0.2527	0.
1 1120	125	-----	-----	-----	-----	8.742	-----	0.
1 1130	135	0.014	0.191	0.068	0.259	-----	0.2521	0.
1 1145	150	0.012	0.171	0.087	0.258	-----	0.2559	0.
1 1200	165	0.014	0.157	0.102	0.258	-----	0.2578	0.
1 1215	180	0.019	0.146	0.111	0.257	8.790	0.2579	0.
1 1230	195	0.021	0.133	0.123	0.256	-----	0.2534	0.
1 1245	210	0.022	0.122	0.134	0.256	-----	0.2642	0.
1 1300	225	0.016	0.111	0.144	0.255	-----	0.2714	0.
1 1315	240	0.022	0.100	0.155	0.254	8.710	-----	0.
1 1330	255	0.031	0.090	0.166	0.255	-----	-----	0.
1 1345	270	0.026	0.080	0.175	0.253	-----	-----	0.
1 1400	285	0.033	0.069	0.185	0.253	-----	-----	0.
1 1415	300	0.035	0.060	0.191	0.250	8.726	-----	0.
1 1430	315	0.049	0.051	0.201	0.252	-----	-----	0.
1 1445	330	0.059	0.043	0.208	0.250	-----	-----	0.
1 1500	345	0.056	0.037	0.215	0.251	-----	-----	0.
1 1515	360	0.072	0.031	0.219	0.249	8.646	-----	0.
1 1531	376	0.080	0.025	0.226	0.250	-----	-----	0.
1 1545	390	0.094	0.021	0.226	0.246	-----	-----	0.
1 1600	405	0.112	0.016	0.232	0.247	-----	-----	0.
1 1605	410	-----	-----	-----	-----	-----	-----	0.
1 1615	420	0.121	0.014	0.232	0.245	8.630	-----	0.

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-UNC PM 600B	MECYC-C6 PPM C-20M	LNC4/C3= DMS-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA
----	0.000	-----	0.0004	0.0021	-----	0.000	-----
.000	-----	-----	-----	-----	-----	-----	-----
----	-----	-0.0849	0.0098	0.0114	-----	-----	-----
.000	-----	-----	-----	-----	-----	-----	0.008
----	-----	-----	-----	-----	-----	-----	-----
.267	-----	-0.1086	0.0100	0.0119	-----	-----	-----
.263	-----	-0.0740	0.0098	0.0113	25.1	-----	-----
.266	-----	-0.0295	0.0096	0.0106	24.9	-----	-----
.265	-----	0.0246	0.0098	0.0103	25.2	-----	-----
.264	-----	0.0732	0.0100	0.0099	25.2	-----	-----
.264	-----	0.1121	0.0096	0.0092	25.5	-----	-----
.261	-----	0.1565	0.0097	0.0089	25.4	-----	-----
.261	-----	0.1949	0.0096	0.0085	25.8	-----	-----
.261	0.000	0.2527	0.0092	0.0076	25.7	0.000	-----
----	8.742	-----	-----	-----	-----	-----	-----
.259	-----	0.2521	0.0096	0.0080	25.9	-----	-----
.258	-----	0.2559	0.0095	0.0078	25.8	-----	-----
.258	-----	0.2578	0.0094	0.0078	25.8	-----	-----
.257	8.790	0.2579	0.0096	0.0079	26.0	0.000	0.008
.256	-----	0.2534	0.0093	0.0077	25.8	-----	-----
.256	-----	0.2642	0.0095	0.0078	25.7	-----	-----
.255	-----	0.2714	0.0092	0.0075	25.9	-----	-----
.254	8.710	-----	-----B	-----B	25.7	0.000	0.006
.255	-----	-----	-----	-----	25.8	-----	-----
.253	-----	-----	-----	-----	26.0	-----	-----
.253	-----	-----	-----	-----	25.8	-----	-----
.250	8.726	-----	-----	-----	25.8	0.002	0.006
.252	-----	-----	-----	-----	25.8	-----	-----
.250	-----	-----	-----	-----	26.0	-----	-----
.251	-----	-----	-----	-----	26.0	-----	-----
.249	8.646	-----	-----	-----	26.0	0.003	0.008
.250	-----	-----	-----	-----	25.9	-----	-----
.246	-----	-----	-----	-----	26.1	-----	-----
.247	-----	-----	-----	-----	26.0	-----	-----
----	-----	-----	-----	-----	-----	-----	0.006
.245	8.630	-----	-----	-----	25.7	0.006	-----

ITC-766
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I- I DI
1 823	-52	0.0002	0.0001	-----	1.24	0.010	0.006	0.
1 1115	120	0.0028	0.0001	0.0004	-----	-----	-----	--
1 1215	180	0.0034	0.0036	-----A	-----	-----	-----	--
1 1315	240	0.0027	0.0036	-----A	-----	-----	-----	--
1 1415	300	0.0034	0.0038	-----A	-----	-----	-----	--
1 1515	360	0.0043	0.0040	-----A	-----	-----	-----	--
1 1615	420	0.0047	0.0032	-----A	-----	-----	-----	--

----- NO DATA TAKEN

NOTES

- A METHYLCYCLOHEXANE INTERFERES WITH MEK.
- B METHYLCYCLOHEXANE INTERFERES WITH CHROMATOGRAM.

27-JUL-84
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THANE PPH N-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1.24	0.010	0.006	0.0006	0.0051	0.0002	0.0049	0.0054
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----

GRAM.

ITC-767
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 14

0630: BEGIN WET FLUSH.

0805: 73 F DRY BULB

65 F WET BULB

0837: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0900: 70% LIGHTS.

1116: INJECT 332 MICOR L METHYLCYCLOHEXANE.
INSTRUMENTS OFF ITC DURING INJECTION.

1620: DUMP AND FLUSH UNTIL 1800.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.1	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.433	PPM
NO2-UNC	C-1600B	0.129	PPM
N-C4	DMS-1	0.0105	PPM
PROPENE	DMS-1	0.0121	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
1400	C-20H	RM-1211 C-20H/DC-703 GC1 FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A

ITC-767
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 14

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	MECYC-C6 PPH C-20M	LNC4/C3=	N-C PF DME
1 811	-49	-----	-----	-----	-----	0.005	-----	0.0
1 830	-30	0.005	0.000	0.002	0.000	-----	-----	-----
1 840	-20	-----	-----	-----	-----	-----	-0.0642	0.0
1 845	-15	0.006	0.436	0.129	0.562	-----	-----	-----
1 900	0	0.011	0.433	0.129	0.559	-----	-0.0691	0.0
1 915	15	0.010	0.432	0.129	0.560	-----	-0.0105	0.0
1 925	25	-----	-----	-----	-----	-----	-----	-----
1 930	30	0.005	0.428	0.131	0.558	-----	0.0241A	0.0
1 945	45	0.012	0.426	0.133	0.558	-----	0.0472A	0.0
1 1000	60	0.011	0.424	0.134	0.557	-----	0.0881A	0.0
1 1015	75	0.011	0.424	0.129	0.551	-----	0.1097A	0.0
1 1030	90	0.011	0.422	0.132	0.553	-----	0.1518	0.0
1 1045	105	0.011	0.420	0.134	0.553	-----	-----	-----
1 1100	120	0.011	0.417	0.134	0.551	-----	0.1753	0.0
1 1115	135	0.022	0.416	0.135	0.550	0.002	0.1912	0.0
1 1120	140	-----	-----	-----	-----	8.806	-----	-----
1 1130	150	-----	-----	-----	-----	-----	0.2109	0.0
1 1145	165	0.012	0.371	0.176	0.547	-----	0.2120	0.0
1 1200	180	0.014	0.356	0.192	0.547	-----	0.2188	0.0
1 1215	195	0.013	0.340	0.207	0.546	8.790	0.2053	0.0
1 1230	210	0.014	0.324	0.220	0.543	-----	0.2321	0.0
1 1245	225	0.014	0.310	0.233	0.541	-----	0.2301	0.0
1 1300	240	0.019	0.294	0.247	0.539	-----	0.2241	0.0
1 1315	255	0.020	0.277	0.264	0.539	8.726	-----	-----
1 1330	270	0.020	0.262	0.275	0.536	-----	-----	-----
1 1345	285	0.019	0.246	0.290	0.534	-----	-----	-----
1 1400	300	0.020	0.229	0.306	0.533	-----	-----	-----
1 1415	315	0.016	0.214	0.322	0.535	8.726	-----	-----
1 1430	330	0.017	0.197	0.334	0.531	-----	-----	-----
1 1445	345	0.023	0.183	0.349	0.530	-----	-----	-----
1 1500	360	0.024	0.168	0.361	0.527	-----	-----	-----
1 1515	375	0.031	0.152	0.374	0.524	8.758	-----	-----
1 1530	390	0.031	0.137	0.389	0.525	-----	-----	-----
1 1545	405	0.031	0.123	0.400	0.521	-----	-----	-----
1 1600	420	0.034	0.111	0.410	0.520	-----	-----	-----
1 1615	435	0.041	0.099	0.420	0.517	8.742	-----	-----

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PAGE 2

UNC PM	MECYC-C6 PPM C-20M	LNC4/C3=	N-C4 PPM DMS-1	PROPENE PPM DMS-1	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA
6008	0.005	-----	0.0004	0.0020	-----	0.000	-----
.000	-----	-----	-----	-----	-----	-----	-----
.562	-----	-0.0642	0.0108	0.0123	-----	-----	-----
.559	-----	-0.0691	0.0105	0.0121	-----	-----	-----
.560	-----	-0.0105	0.0107	0.0115	25.1	-----	-----
.558	-----	0.0241A	0.0106A	0.0110A	25.0	-----	0.004
.558	-----	0.0472A	0.0103A	0.0106A	25.4	-----	-----
.557	-----	0.0881A	0.0107A	0.0105A	25.3	-----	-----
.551	-----	0.1097A	0.0106A	0.0102A	25.7	-----	-----
.553	-----	0.1518	0.0105	0.0097	25.6	-----	-----
.553	-----	-----B	-----B	-----B	25.7	-----	-----
.551	-----	0.1753	0.0106	0.0095	25.7	-----	-----
.550	0.002	0.1912	0.0105	0.0092	25.7	0.000	-----
8.806	-----	-----	-----	-----	-----	-----	-----
.547	-----	0.2109	0.0100	0.0086	25.7	-----	-----
.547	-----	0.2120	0.0104	0.0090	26.0	-----	-----
.546	8.790	0.2188	0.0101	0.0087	25.9	-----	-----
.543	-----	0.2053	0.0103	0.0090	25.9	0.000	0.002
.541	-----	0.2321	0.0102	0.0087	26.2	-----	-----
.539	-----	0.2301	0.0104	0.0089	26.0	-----	-----
.539	8.726	0.2241	0.0104	0.0089	25.9	-----	-----
.536	-----	-----D	-----D	-----D	26.1	0.000	0.000
.534	-----	-----	-----	-----	26.5	-----	-----
.533	-----	-----	-----	-----	26.7	-----	-----
.533	-----	-----	-----	-----	26.8	-----	-----
.535	8.726	-----	-----	-----	26.8	0.001	0.002
.531	-----	-----	-----	-----	26.9	-----	-----
.530	-----	-----	-----	-----	27.0	-----	-----
.527	-----	-----	-----	-----	27.0	-----	-----
.524	8.758	-----	-----	-----	27.1	0.002	0.000
.525	-----	-----	-----	-----	26.6	-----	-----
.521	-----	-----	-----	-----	26.3	-----	-----
.520	-----	-----	-----	-----	26.3	-----	-----
.517	8.742	-----	-----	-----	25.7	0.003	-----

ITC-767
NOX-AIR + METHYLCYCLOHEXANE
1984 MARCH 14

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHER PPM PN-1
1 811	-49	0.0006	0.0005	1.20	0.009	0.006	0.0006	0.00
1 1115	135	0.0024	0.0002	-----	-----	-----	-----	-----
1 1215	195	0.0032	0.0038	-----	-----	-----	-----	-----
1 1315	255	0.0034	0.0037	-----	-----	-----	-----	-----
1 1415	315	0.0039	0.0042	-----	-----	-----	-----	-----
1 1515	375	0.0059	0.0049	-----	-----	-----	-----	-----
1 1615	435	0.0054	0.0044	-----	-----	-----	-----	-----

----- NO DATA TAKEN

NOTES

- A NOISY BASELINE, GETTING PROGRESSIVELY WORSE.
- B MISSED SAMPLE; CHANGING ELECTROMETERS.
- C METHYLCYCLOHEXANE INTERFERES.
- D STOPPED SAMPLING ON DMS DUE TO METHYLCYCLOHEXANE INTERFERENCE FROM 1130 SA

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PAGE 3

NE M 1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
009	0.006	0.0006	0.0036	0.0002	0.0041	0.0048
---	---	---	---	---	---	---
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SE.

HEXANE INTERFERENCE FROM 1130 SAMPLE.

ITC-768
JP-4 SHALE - NOX
1984 MARCH 15

0630: BEGIN WET FLUSH.
0812: STOP FLUSH. R.H. 50% @ 80 F.
64 F WET BULB
74 F DRY BULB
0830: INJECTIONS: 3.56 ML NO
0.64 ML NO2
480 MICRO L JP-4 SHALE
--USED HEAT GUN FOR INTRODUCTION
1000: 70% LIGHTS.
1700: DUMP BAG. FLUSH BAG AS FOLLOWS:
1100-2000: FLUSH FOR 3 HOURS WITH 100% LIGHTS.
2000-2200: FLUSH FOR 2 HOURS WITHOUT LIGHTS.

T=0 AT 1000 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.0	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.434	PPM
NO2-UNC	C-1600B	0.097	PPM
N-C6	DB-5C-1	0.1289	PPM
MECYC-C6	DB-5C-1	0.2423	PPM
N-C7	DB-5C-1	0.1003	PPM
N-C8	DB-5C-1	0.0832	PPM
N-C9	DB-5C-1	0.1746	PPM
N-C10	DB-5C-1	0.3396	PPM
N-C11	DB-5C-1	0.4679	PPM
N-C12	DB-5C-1	0.7784	PPM
N-C13	DB-5C-1	1.3830	PPM
TOLUENE	DB-5C-1	0.1978	PPM
P-XYL	DB-5C-1	0.1567	PPM
135-TMB	DB-5C-1	0.0967	PPM

ITC-768
JP-4 SHALE - NOX
1984 MARCH 15

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP, GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A

ITC-768
JP-4 SHALE - NOX
1984 MARCH 15

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	MECYC- PPM DB-5C
1 830	-90	0.007	0.000	0.001	0.000	-----	-----	-----
1 945	-15	0.007	0.437	0.094	0.530	-----	-----	-----
1 950	-10	-----	-----	-----	-----	-----	0.1295	0.24
1 1000	0	0.012	0.434	0.097	0.530	-----	0.1289	0.24
1 1015	15	0.014	0.395	0.134	0.528	25.7	-----	-----
1 1030	30	0.015	0.360	0.166	0.526	25.8	-----	-----
1 1045	45	0.020	0.331	0.193	0.522	26.0	-----	-----
1 1100	60	0.021	0.297	0.222	0.507	26.3	0.1314	0.24
1 1115	75	0.021	0.263	0.256	0.488	26.4	-----	-----
1 1130	90	0.016	0.227	0.286	0.469	26.7	-----	-----
1 1145	105	0.025	0.191	0.319	0.451	26.7	-----	-----
1 1200	120	0.033	0.156	0.352	0.434	26.6	0.1222	0.23
1 1215	135	0.041	0.122	0.383	0.416	26.2	-----	-----
1 1230	150	0.053	0.093	0.405	0.400	26.3	-----	-----
1 1245	165	0.069	0.068	0.425	0.383	25.9	-----	-----
1 1300	180	0.084	0.049	0.439	0.367	25.8	0.1262	0.23
1 1315	195	0.113	0.035	0.444	0.351	26.1	-----	-----
1 1330	210	0.144	0.024	0.449	0.335	25.9	-----	-----
1 1345	225	0.187	0.017	0.447	0.320	25.8	-----	-----
1 1400	240	0.216	0.013	0.441	0.305	26.0	0.1268	0.23
1 1415	255	0.274	0.008	0.435	0.290	25.9	-----	-----
1 1430	270	0.333	0.007	0.424	0.275	25.8	-----	-----
1 1445	285	0.385	0.006	0.411	0.260	25.9	-----	-----
1 1500	300	0.454	0.004	0.395	0.246	25.9	-----A	-----
1 1515	315	0.522	0.002	0.376	0.232	25.9	-----	-----
1 1530	330	0.583	0.003	0.354	0.218	25.9	-----	-----
1 1545	345	0.650	0.002	0.330	0.204	25.8	-----	-----
1 1600	360	0.711	0.001	0.308	0.191	25.9	0.1012	0.1
1 1615	375	0.753	0.002	0.284	0.177	26.0	-----	-----
1 1630	390	0.792	0.001	0.266	0.164	25.8	-----	-----
1 1645	405	0.806	0.000	0.250	0.151	25.7	-----	-----
1 1700	420	0.821	0.001	0.239	0.138	25.6	-----	-----

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ITC-768
JP-4 SHALE - NOX
1984 MARCH 15

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C11 PPM DB-5C-1	N-C12 PPM DB-5C-1	N-C13 PPM DB-5C-1	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	RT=11 RAW DB-5
1 814	-106	-----	-----	-----	-----	-----	-----	---
1 900	-60	-----	-----	-----	-----	-----	-----	---
1 950	-10	0.4591	0.7283	1.195	0.1992	0.1595	0.0960	19
1 1000	0	0.4679	0.7784	1.383	0.1978	0.1567	0.0967	18
1 1100	60	0.4816	0.7889	1.353	0.2010	0.1591	0.0957	18
1 1200	120	0.4454	0.7596	1.323	0.1882	0.1489	0.0892	18
1 1300	180	0.4566	0.7653	1.328	0.1919	0.1517	0.0888	19
1 1400	240	0.4528	0.7608	1.310	0.1921	0.1496	0.0820	18
1 1500	300	0.5116	0.7599	1.180	-----A	0.2039	0.1219	---
1 1600	360	0.3646	0.6151	1.077	0.1613	0.1195	0.0661	14
1 1610	370	-----	-----	-----	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROP PP DMS
1 814	-106	1.22	0.007	0.005	0.0003	0.0005	0.0029	0.0

----- NO DATA TAKEN

NOTES

- A FLAME OUT--LOST SOME DATA.
- B 11.78 IS THE CALIBRATED RETENTION TIME.

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ENE M C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	RT=11.78 RAW DATA DB-5C-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
---	---	---	---	0.000	---	0.0004	0.0000
---	---	---	---	---	0.004	---	---
992	0.1595	0.0960	190.58	---	---	---	---
1978	0.1567	0.0967	189.2	0.000	---	---	---
2010	0.1591	0.0957	189.5	0.001	0.006	---	---
1882	0.1489	0.0892	188.2	0.003	0.010	---	---
1919	0.1517	0.0888	192.3	0.007	0.010	---	---
1921	0.1496	0.0820	180.2	0.013	0.014	---	---
---A	0.2039	0.1219	---A	0.025	---	---	---
1613	0.1195	0.0661	146.6	0.037	---	---	---
---	---	---	---	---	0.012	---	---
C4 PM S-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1	
0003	0.0005	0.0029	0.0019	0.0003	0.0030	0.0032	

ITC-770
NOX-AIR + N-BUTANE
1984 MARCH 19

0630: START WET FLUSH.
0829: STOP FLUSH. R.H. 50% @ 80 F.
79 F DRY BULB
66 F WET BULB
0920: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.032 ML PROPANE
0.051 ML PROPENE
0945: 70% LIGHTS.
1145: INJECT 64 ML N-BUTANE.
1615: DUMP BAG AND FLUSH.
1715: STOP FLUSH. DEFLATE BAG 30-50%

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.8	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.406	PPH
NO2-UNC	C-1600B	0.141	PPH
PROPANE	DMS-1	0.0101	PPH
PROPENE	DMS-1	0.0100	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-1211 DINETHYLSULFOLANE GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2290	DMS-2	RM-1031 DINETHYLSULFOLANE GC1 FID
2920	10'C-400	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A

ITC-770
NOX-AIR + N-BUTANE
1984 MARCH 19

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	N-C4 PPM DMS-2	N-C4 PPM DMS-1	LNC3
1 847	-58	-----	-----	-----	-----	-----	0.0002	--
1 915	-30	0.004	0.000	0.004	0.392	-----	-----	--
1 922	-23	-----	-----	-----	-----	-----	-----	--
1 930	-15	0.010	0.411	0.142	0.551	-----	-----	--
1 931	-14	-----	-----	-----	-----	-----	-----	0.
1 945	0	0.011	0.406	0.141	0.545	-----	-----	0.
1 1000	15	0.011	0.403	0.141	0.542	-----	-----	0.
1 1015	30	0.006	0.399	0.138	0.536	-----	-----	0.
1 1030	45	0.012	0.398	0.137	0.533	-----	-----	0.
1 1045	60	0.005	0.391	0.137	0.527	-----	-----	0.
1 1100	75	0.005	0.389	0.139	0.526	-----	-----	0.
1 1115	90	0.006	0.385	0.137	0.520	-----	-----	0.
1 1130	105	0.012	0.381	0.140	0.521	-----	-----	0.
1 1145	120	0.011	0.380	0.140	0.520	-----	-----	0.
1 1155	130	-----	-----	-----	-----	9.439	-----	--
1 1200	135	0.012	0.350	0.165	0.514	-----	-----	0.
1 1215	150	0.006	0.320	0.194	0.513	-----	-----	0.
1 1230	165	0.012	0.300	0.212	0.510	-----	-----	0.
1 1245	180	0.012	0.277	0.234	0.509	9.349	-----	0.
1 1300	195	0.013	0.257	0.250	0.505	-----	-----	0.
1 1315	210	0.019	0.239	0.267	0.504	-----	-----	0.
1 1330	225	0.013	0.222	0.282	0.503	-----	-----	0.
1 1345	240	0.016	0.206	0.298	0.502	9.304	-----	0.
1 1400	255	0.020	0.188	0.314	0.500	-----	-----	0.
1 1415	270	0.022	0.172	0.327	0.498	-----	-----	0.
1 1430	285	0.016	0.158	0.341	0.497	-----	-----	0.
1 1445	300	0.023	0.144	0.353	0.496	9.259	-----	0.
1 1500	315	0.030	0.131	0.364	0.494	-----	-----	0.
1 1515	330	0.030	0.119	0.375	0.492	-----	-----	0.
1 1530	345	0.031	0.108	0.384	0.490	-----	-----	0.
1 1545	360	0.034	0.097	0.393	0.488	9.236	-----	--
1 1600	375	0.042	0.087	0.399	0.485	-----	-----	0.

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PAGE 2

UNC PM	N-C4 PPM DMS-2	N-C4 PPM DMS-1	LNC3/C3=	PROPANE PPM DMS-1	PROPENE PPM DMS-1	T DEG C ANA-TEMP	PAN PPM ECD-1
500B		0.0002		0.0055	0.0020		0.000
392					0.0100		
551			0.2588	0.0101	0.0099		
545			0.2528	0.0101	0.0100		
542			0.3098	0.0106	0.0099	26.5	
536			0.3739	0.0099	0.0087	26.5	
533			0.3905	0.0105	0.0091	26.6	
527			0.4226	0.0105	0.0088	26.8	
526			0.4555	0.0104	0.0084	26.9	
520			0.4625	0.0095	0.0076	27.0	
521			0.4980	0.0104	0.0080	27.1	
520			0.5238	0.0104	0.0078	27.0	0.000
	9.439						
514			0.5506	0.0099	0.0073	26.7	
513			0.5631	0.0105	0.0076	26.7	
510			0.5870	0.0102	0.0072	26.6	
509	9.349		0.6004	0.0104	0.0073	26.6	0.000
505			0.6030	0.0099	0.0069	26.6	
504			0.6205	0.0101	0.0069	26.7	
503			0.6383	0.0101	0.0068	26.6	
502	9.304		0.6390	0.0095	0.0064	26.4	0.000
500			0.6403	0.0095	0.0062	26.7	
498			0.6253	0.0102	0.0070	26.8	
497			0.6815	0.0090	0.0058	26.8	
496	9.259		0.7049	0.0090	0.0057	26.9	0.000
494			0.7276	0.0100	0.0061	26.9	
492			0.7494	0.0097	0.0058	26.8	
490			0.7790	0.0098	0.0057	26.8	
488	9.236					26.8	0.000
485			0.7860	0.0101	0.0058	26.9	

ITC-770
NOX-AIR + N-BUTANE
1984 MARCH 19

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	MECYC-C6 H.VOLTS 10'C-600	RT=1.02 H.VOLTS ECD-1	HET P PM
1 847	-58	-----	0.0004	0.0004	-----	2.032	-----	---
1 935	-10	0.063	-----	-----	-----	-----	-----	---
1 1135	110	0.036	-----	-----	-----	-----	-----	---
1 1145	120	-----	0.0030	0.0011	-----	0.8640	-----	---
1 1245	180	0.038	-----	-----	-----	-----	1.040	---
1 1300	195	-----	0.0389	0.0002	0.0223	-----	-----	---
1 1345	240	0.034	0.0341	0.0002	0.0275	-----	1.744	---
1 1445	300	0.032	0.0478	0.0004	0.0420	-----	2.192	---
1 1545	360	0.022	0.0558	0.0004	0.0467	-----	2.992	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 847	-58	0.0021	0.0022

----- NO DATA TAKEN

NOTES

A OFFSCALE.

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PK PM	MECYC-C6 M.VOLTS 10'C-600	RT=1.02 M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1
600	2.032		1.22	0.005	0.0006	0.0028	0.0003
	0.8640						
		1.040					
0223							
0275		1.744					
0420		2.192					
0467		2.992					

ITC-771
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MARCH 20

1720 (MARCH 19): START 2 L/MIN N2 FLOW OF 2,3-DIMETHYLNAPHTHALENE.
0800: STOP 2,3-DIMETHYLNAPHTHALENE N2 FLUSH (MEASURED @ 2 L/MIN).
BAG BROUGHT UP TO VOLUME WITH 50% R.H. PURE AIR.
0905: INJECTIONS: 1.58 ML NO
0.32 ML NO2
0945: 70% LIGHTS.
1510: DUMPED BAG AND START FLUSH WITH LIGHTS ON.
1618: LIGHTS OFF. STOPPED FLUSH.
2300: FLUSH 3 HOURS WITH LIGHTS AND 2 HOURS WITHOUT LIGHTS.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.6	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.206	PPM
NO2-UNC	C-1600B	0.059	PPM
2,3-DMN	SP C-II	0.3974	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1624	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2100	PN-1	RH-1211 POROPAK-N GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC; FID
2702	SP C-II	RH-1031 SUPERPAK-II; FID(TENAX)

ITC-771
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MARCH 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	2,3-DHM PPH SP C-II	T DEG ANA-T
1 823	-82	-----	-----	-----	-----	-----	-----	---
1 844	-61	-----	-----	-----	-----	-----	0.4246	---
1 900	-45	0.302	0.001	0.028	0.009	0.038	-----	---
1 917	-28	-----	-----	-----	-----	-----	0.4487	---
1 927	-18	-----	-----	-----	-----	-----	-----	---
1 930	-15	0.247	0.000	0.204	0.059	0.262	-----	---
1 945	0	0.213	0.000	0.206	0.059	0.263	0.3974	---
1 1000	15	0.182	0.003	0.180	0.083	0.262	-----	2
1 1015	30	0.146	0.005	0.145	0.114	0.258	-----	2
1 1030	45	0.134	0.014	0.110	0.140	0.250	-----	2
1 1045	60	0.127	0.029	0.082	0.158	0.240	0.3566	2
1 1100	75	0.141	0.055	0.062	0.167	0.228	-----	2
1 1115	90	0.170	0.085	0.050	0.166	0.216	-----	2
1 1130	105	0.191	0.117	0.045	0.157	0.201	-----	2
1 1145	120	0.213	0.149	0.041	0.143	0.183	0.2181	2
1 1200	135	0.232	0.181	0.038	0.129	0.167	-----	2
1 1215	150	0.245	0.208	0.035	0.117	0.152	-----	2
1 1230	165	0.257	0.232	0.033	0.104	0.137	-----	2
1 1245	180	0.281	0.250	0.031	0.093	0.124	0.1230	2
1 1300	195	0.287	0.270	0.028	0.085	0.114	-----	2
1 1315	210	0.302	0.278	0.027	0.077	0.104	-----	2
1 1330	225	0.314	0.287	0.025	0.072	0.097	-----	2
1 1345	240	0.320	0.293	0.022	0.070	0.092	0.0083B	2
1 1400	255	0.323	0.293	0.020	0.068	0.088	-----	2
1 1415	270	0.325	0.293	0.019	0.066	0.085	-----	2
1 1430	285	0.333	0.293	0.016	0.068	0.084	-----	2
1 1445	300	0.326	0.293	0.014	0.069	0.083	0.0451	2
1 1500	315	0.331	0.293	0.013	0.069	0.082	-----	2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MEK PPH 10'C-600	RT=0.8 M.VOLTS ECD-1	RT=3.70 RAW DATA 10'C-600	RT=13.2 RAW DATA 10'C-600	RT=2.7 RAW DATA 10'C-600	METHANE PPH PN-1	ETHA PP PN-
1 823	-82	0.0008	-----	4.088	-----	-----	1.02	0.
1 838	-67	-----	-----	-----	-----	-----	-----	---
1 945	0	0.0007	-----	1.496	2.408	-----	-----	---
1 1045	60	0.0007	3.776	2.008	2.800	1.032	-----	---
1 1145	120	0.0008	9.104	1.456	2.288	3.096	-----	---
1 1245	180	0.0009	12.35	1.192	1.536	3.904	-----	---
1 1345	240	0.0007	16.10A	0.8960	1.056	5.136	-----	---

----- NO DATA TAKEN

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PAGE 2

JNC 1	NOX-UNC PPH C-1600B	2,3-DHM PPH SP C-II	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600
00B	---	---	---	0.000	---	0.0018	0.0001
---	---	0.4246	---	---	---	---	---
009	0.038	---	---	---	---	---	---
---	---	0.4487	---	---	---	---	---
059	0.262	---	---	---	---	---	---
059	0.263	0.3974	---	0.000	---	0.0012	0.0001
083	0.262	---	26.7	---	---	---	---
114	0.258	---	26.7	---	---	---	---
140	0.250	---	26.2	---	---	---	---
158	0.240	0.3566	26.1	0.002	0.004	0.0024	0.0003
167	0.228	---	26.2	---	---	---	---
166	0.216	---	26.3	---	---	---	---
157	0.201	---	26.4	---	---	---	---
143	0.183	0.2181	26.5	0.013	0.012	0.0030	0.0008
129	0.167	---	26.5	---	---	---	---
117	0.152	---	26.6	---	---	---	---
104	0.137	---	26.5	---	---	---	---
093	0.124	0.1230	26.6	0.290	0.010	0.0053	0.0014
085	0.114	---	26.5	---	---	---	---
077	0.104	---	26.7	---	---	---	---
072	0.097	---	26.6	---	---	---	---
070	0.092	0.0083B	26.7	0.048A	0.016	0.0070	0.0016
068	0.088	---	26.7	---	---	---	---
066	0.085	---	26.7	---	---	---	---
068	0.084	---	26.7	---	---	---	---
069	0.083	0.0451	26.9	0.056	0.022	0.0095	0.0019
069	0.082	---	27.0	---	---	---	---

3.2 DATA 600	RT=2.7 RAW DATA 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DHS-1	N-C4 PPH DHS-1	I-C4 PPH DHS-1	ETHENE PPH PN-1
---	---	1.02	0.005	0.006	---	0.0008	0.0018
---	---	---	---	---	0.0084	---	---
400	---	---	---	---	---	---	---
000	1.032	---	---	---	---	---	---
200	3.096	---	---	---	---	---	---
836	3.904	---	---	---	---	---	---
056	3.136	---	---	---	---	---	---

ITC-771
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MARCH 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HEK PPM 10'C-600	RT=0.8 H.VOLTS ECD-1	RT=3.70 RAW DATA 10'C-600	RT=13.2 RAW DATA 10'C-600	RT=2.7 RAW DATA 10'C-600	METHANE PPM PN-1	ETHAN PPM PN-1
1 1445	300	0.0016	15.42	0.7280	0.9280	5.776	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 823	-82	0.0023	-----	-----	0.0014
1 838	-67	-----	0.0003	0.0066	-----

----- NO DATA TAKEN

NOTES

A DILUTED SAMPLE: 50 ML SAMPLE IN 50 ML NITROGEN.
B DON'T KNOW WHAT HAPPENED HERE!

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3.2 DATA 600	RT=2.7 RAW DATA 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1
280	5.776	-----	-----	-----	-----	-----	-----

LEN
M
1

014

GEN.

ITC-772
NOX-AIR IRRADIATION
1984-MARCH-21

645: START FLUSH.
825: STOP FLUSH.

WET BULB 66 F

DRY BULB 75 F

857: INJECTIONS: 1.58 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

915: 70X LIGHTS.
1116: DUMP BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.4	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.336	PPM
NO2-UNC	C-1600B	0.113	PPM
N-C4	DMS-1	0.0105	PPM
PROPENE	DMS-1	0.0117	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RH-121: DINETHYLSULFOLANE GC: FID
2100	PN-1	RH-121: POROPAK-N GC: FID
2000	ECD-1	RH-121: 12' 5% CARBOWAX-400 GC: ECD
2920	10'C-600	RH-121: 10' 10% CARBOWAX-600 GC: FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-772
NOX-AIR IRRADIATION
1984-MARCH-21

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C DMS-
1 824	-51	-----	-----	-----	-----	0.0009	0.0025	-----
1 845	-30	0.003	0.002	0.009	0.012	-----	-----	-----
1 900	-15	0.002	0.337	0.106	0.442	0.0103	0.0117	-0.05
1 910	-5	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.002	0.336	0.113	0.448	0.0105	0.0117	-0.03
1 930	15	0.003	0.332	0.119	0.450	0.0107	0.0110	0.03
1 945	30	0.003	0.318	0.130	0.448	0.0102	0.0099	0.09
1 1000	45	0.002	0.309	0.136	0.444	0.0099	0.0090	0.14
1 1015	60	0.003	0.299	0.146	0.445	0.0100	0.0084	0.24
1 1030	75	0.004	0.287	0.150	0.437	0.0099	0.0079	0.29
1 1045	90	0.004	0.281	0.155	0.434	0.0099	0.0075	0.34
1 1100	105	0.004	0.272	0.162	0.433	0.0096	0.0068	0.40
1 1105	110	-----	-----	-----	-----	-----	-----	-----
1 1115	120	0.009	0.263	0.165	0.428	0.0097	0.0064	0.47

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	2,3-DMN PPH DMS-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	1-C4 PPH DMS-1	ETHEN PPH PN-1
1 824	-51	0.0000	-----	1.28	0.003	0.005	0.0005	0.00
1 930	15	-----	0.0006	-----	-----	-----	-----	-----

----- NO DATA TAKEN

UNC PM	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3= DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600
600B							
----	0.0009	0.0025	-----	-----	0.000	-----	0.0009
.012	-----	-----	-----	-----	-----	-----	-----
.442	0.0103	0.0117	-0.0544	-----	-----	-----	-----
----	-----	-----	-----	-----	-----	0.198	-----
.448	0.0105	0.0117	-0.0398	-----	-----	-----	-----
.450	0.0107	0.0110	0.0311	25.4	-----	-----	-----
.448	0.0102	0.0099	0.0917	25.8	-----	-----	-----
.444	0.0099	0.0090	0.1680	26.2	-----	-----	-----
.445	0.0100	0.0084	0.2402	26.4	-----	-----	-----
.437	0.0099	0.0079	0.2928	26.7	-----	-----	-----
.434	0.0099	0.0075	0.3495	26.8	-----	-----	-----
.433	0.0096	0.0068	0.4055	27.0	-----	-----	-----
----	-----	-----	-----	-----	-----	0.146	-----
.428	0.0097	0.0064	0.4734	27.0	-----	-----	-----

ANE PM	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
-1						
.003	0.005	0.0005	0.0025	0.0002	0.0033	0.0034
----	-----	-----	-----	-----	-----	-----

ITC-774
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 22

1641 (MARCH 21): START 2,3 DIMETHYLNAPHTHALENE FLUSH AT 2 L/MIN.
806: STOP 2,3 DIMETHYLNAPHTHALENE FLUSH. TOP OFF BAG WITH 56% R.H. PURE AIR.
912: INJECTIONS: 3.56 ML NO
 0.64 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE

945: 70% LIGHTS.
1546: DUMP BAG. TIMER SET FOR 3 HOUR FLUSH AT 100% LIGHTS + 2 HOUR W/O LIGHTS.
2052: STOP FLUSH. DEFLATE BAG ~20%. TIMER SET FOR MIDNIGHT START OF N2 FLUSH
@ 1.0 L/MIN THRU 2-3 DIMETHYLNAPHTHALENE TUBE.

T=0 AT 945 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.4	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.445	PPM
NO2-UNC	C-1600B	0.120	PPM
2,3-DMN	SP C-II	0.3303	PPM
N-C4	DMS-1	0.0107	PPM
PROPENE	DMS-1	0.0120	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2100	PM-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBOWAX-400 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2702	SP C-II	RH-103; SUPERPAK-II; FID(TENAX)

ITC-774
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 22

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM MO3-8410	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	2,3-DMN PPM SP C-11	LNC4/C DMS-
1 824	-81	-----	-----	-----	-----	-----	0.3436	----
1 840	-65	-----	-----	-----	-----	-----	0.3411	----
1 916	-29	-----	-----	-----	-----	-----		-0.01
1 917	-28	-----	-----	-----	-----	-----		----
1 930	-15	0.000	0.082	-----	-----	-----		----
1 945	0	0.000	0.081	0.445D	0.120D	-----	0.3303	-0.04
1 1000	15	0.001	0.075	0.430	0.137	0.566	-----	-0.03
1 1015	30	0.001	0.079	0.405	0.161	0.563	0.1809	-0.02
1 1030	45	0.002	0.071	0.367	0.189	0.555	-----	0.04
1 1045	60	0.004	0.074	0.323	0.227	0.549	-----A	-0.00
1 1100	75	0.005	0.082	0.275	0.266	0.539	-----	0.06
1 1115	90	0.009	0.091	0.224	0.301	0.523	0.2333	0.04
1 1130	105	0.015	0.103	0.176	0.334	0.509	-----	0.09
1 1145	120	0.025	0.114	0.135	0.358	0.491	0.2237	0.12
1 1200	135	0.041	0.132	0.103	0.371	0.473	-----	0.18
1 1215	150	0.060	0.144	0.082	0.376	0.455	0.0457	0.23
1 1230	165	0.081	0.158	0.066	0.374	0.439	-----	0.26
1 1245	180	0.106	0.175	0.055	0.367	0.422	0.1474	0.35
1 1300	195	0.126	0.201	0.047	0.356	0.402	-----	----
1 1315	210	0.148	0.213	0.041	0.343	0.383	0.0949	----
1 1330	225	0.171	0.226	0.037	0.330	0.365	-----	----
1 1345	240	0.190	0.250	0.031	0.315	0.346	0.0675	----
1 1400	255	0.209	0.262	0.029	0.300	0.328	-----	----
1 1415	270	0.226	0.272	0.025	0.285	0.309	0.0536	----
1 1430	285	0.246	0.292	0.021	0.273	0.293	-----	----
1 1445	300	0.267	0.294	0.017	0.260	0.277	0.0300	----
1 1500	315	0.284	0.300	0.015	0.247	0.261	-----	----
1 1515	330	0.302	0.303	0.012	0.235	0.247	-----B	----
1 1530	345	0.321	0.309	0.010	0.224	0.234	-----	----
1 1545	360	0.341	0.310	0.008	0.215	0.222	0.0079	----

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-UNC PM 600B	NOX-UNC PPH C-1600B	2,3-DMN PPH SP C-II	LNC4/C3= DMS-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1
----	-----	0.3436	-----	-----	-----	-----	-----
----	-----	-----	-----	0.0005	0.0018	-----	0.000
----	-----	0.3411	-----	-----	-----	-----	-----
----	-----	-----	-0.0129	0.0106	0.0115	-----	-----
----	-----	-----	-----	-----	-----	-----	-----
0.120D	-----	0.3303	-0.0447	0.0107	0.0120	-----	0.000
0.137	0.566	-----	-0.0348	0.0107	0.0118	26.1	-----
0.161	0.563	0.1809	-0.0287	0.0108	0.0119	26.1	-----
0.189	0.555	-----	0.0477	0.0097	0.0099	26.4	-----
0.227	0.549	-----A	-0.0080	0.0110	0.0118	26.6	0.000
0.266	0.539	-----	0.0660	0.0106	0.0106	26.8	-----
0.301	0.523	0.2333	0.0496	0.0109	0.0111	27.0	-----
0.334	0.509	-----	0.0970	0.0106	0.0103	26.3	-----
0.358	0.491	0.2237	0.1233	0.0108	0.0102	26.4	0.004
0.371	0.473	-----	0.1814	0.0104	0.0093	26.5	-----
0.376	0.455	0.0457	0.2341	0.0104	0.0088	26.5	-----
0.374	0.439	-----	0.2684	0.0106	0.0086	26.5	-----
0.367	0.422	0.1474	0.3511	0.0102	0.0077	26.5	0.014
0.356	0.402	-----	-----	-----	-----	26.5	-----
0.343	0.383	0.0949	-----	-----	-----	26.4	-----
0.330	0.365	-----	-----	-----	-----	26.3	-----
0.315	0.346	0.0675	-----	-----	-----	26.2	0.280
0.300	0.328	-----	-----	-----	-----	26.1	-----
0.285	0.309	0.0536	-----	-----	-----	26.1	-----
0.273	0.293	-----	-----	-----	-----	26.2	-----
0.260	0.277	0.0300	-----	-----	-----	26.2	0.047
0.247	0.261	-----	-----	-----	-----	26.2	-----
0.235	0.247	-----B	-----	-----	-----	26.2	-----
0.224	0.234	-----	-----	-----	-----	26.2	-----
0.215	0.222	0.0079	-----	-----	-----	26.2	0.069

ITC-774
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 22

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	RT=0.8 H.VOLTS DMS-1	RT=2.8 RAW DATA 10'C-600	METH PP PN-
1 840	-65	-----	0.0011	0.0000	-----	-----	-----	0
1 930	-15	-----C	-----	-----	-----	-----	-----	---
1 945	0	-----	0.0014	0.0001	-----	-----	-----	---
1 1045	60	0.000	0.0037	0.0001	0.0007	2.592	-----	---
1 1145	120	0.004	0.0056	0.0003	0.0009	7.024	2.832	---
1 1245	180	0.000	0.0076	0.0008	0.0012	10.26	5.360	---
1 1345	240	0.117	0.0079	0.0009	0.0010	12.37	5.992	---
1 1445	300	0.184	0.0106	0.0013	0.0014	13.10	6.736	---
1 1540	355	0.121	-----	-----	-----	-----	-----	---
1 1545	360	-----	0.0134	0.0020	0.0023	13.81	-----A	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 840	-65	0.0002	0.0024	0.0024

----- NO DATA TAKEN

NOTES

- A OFFSCALE.
- B ON TOP OF ANOTHER LUMPY PEAK.
- C NOT TAKEN.
- D EXTRAPOLATED TO T=0 FROM STRIP CHART. INSTRUMENT OFFLINE.

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MEK PPH C-600	RT=0.8 H.VOLTS DMS-1	RT=2.8 RAW DATA 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1
-----	-----	-----	0.98	0.004	0.005	0.0004	0.0028
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
.0007	2.592	-----	-----	-----	-----	-----	-----
.0009	7.024	2.832	-----	-----	-----	-----	-----
.0012	10.26	5.360	-----	-----	-----	-----	-----
.0010	12.37	5.992	-----	-----	-----	-----	-----
.0014	13.10	6.736	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
.0023	13.81	-----A	-----	-----	-----	-----	-----

STRUMENT OFFLINE.

ITC-775
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 23

0000: START N2 FLUSH AT 1.0 L/MIN THROUGH 2,3-DIMETHYLNAPHTHALENE
TUBE.

0810: STOP 2,3-DIMETHYLNAPHTHALENE FLOW.
TOP OFF BAG.

0906: INJECTIONS: 1.78 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0945: 70% LIGHTS.

1547: DUMP BAG.

FLUSH 3 HOURS WITH 100% LIGHTS AND 2 HOURS WITHOUT LIGHTS.

T=0 AT 945 PST

K1 = 0.300 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.2	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.221	PPH
NO2-UNC	C-1600B	0.072	PPH
2,3-DHN	SP C-II	0.1388	PPH
N-C4	DMS-1	0.0099	PPH
PROPENE	DMS-1	0.0114	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2702	SP C-II	RH-103; SUPERPAK-II; FID(TENAX)

ITC-775
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	2,3-DMN PPH SP C-II	LNC4/
1 836	-69	-----	-----	-----	-----	-----	0.0663	---
1 841	-64	-----	-----	-----	-----	-----	-----	---
1 900	-45	0.064	0.000	0.033	0.013	0.047	-----	---
1 910	-35	-----	-----	-----	-----	-----	-----	-0.0
1 912	-33	-----	-----	-----	-----	-----	0.1113	---
1 930	-15	0.062	0.001	0.225	0.070	0.294	-----	---
1 945	0	0.061	0.001	0.221	0.072	0.292	0.1388	-0.0
1 1000	15	0.062	0.004	0.208	0.082	0.289	-----	-0.0
1 1015	30	0.052	0.003	0.188	0.098	0.285	-----	0.0
1 1030	45	0.043	0.006	0.165	0.115	0.279	-----	---
1 1035	50	-----	-----	-----	-----	-----	0.0590	0.0
1 1045	60	0.034	0.009	0.139	0.134	0.272	-----	---
1 1047	62	-----	-----	-----	-----	-----	-----	0.0
1 1100	75	0.035	0.015	0.114	0.152	0.264	0.0759	0.0
1 1115	90	0.043	0.021	0.091	0.167	0.258	-----	0.0
1 1125	100	-----	-----	-----	-----	-----	0.0567	---
1 1130	105	0.053	0.030	0.071	0.177	0.248	-----	0.1
1 1145	120	0.069	0.043	0.054	0.173	0.228	0.0441	0.2
1 1200	135	0.082	0.059	0.045	0.185	0.229	-----	0.2
1 1215	150	0.101	0.075	0.037	0.175	0.211	0.0329	0.3
1 1230	165	0.105	0.091	0.030	0.177	0.206	-----	0.4
1 1245	180	0.131	0.104	0.025	0.169	0.193	0.0255	---
1 1300	195	0.142	0.124	0.019	0.169	0.188	-----	---
1 1315	210	0.161	0.143	0.017	0.163	0.179	0.0131	---
1 1330	225	0.166	0.156	0.013	0.158	0.171	-----	---
1 1345	240	0.189	0.172	0.011	0.153	0.164	0.0082	---
1 1400	255	0.201	0.184	0.009	0.147	0.155	-----	---
1 1415	270	0.211	0.199	0.007	0.144	0.150	0.0062	---
1 1430	285	0.223	0.213	0.006	0.140	0.145	-----	---
1 1445	300	0.241	0.225	0.005	0.136	0.140	-----B	---
1 1500	315	0.251	0.239	0.004	0.132	0.136	-----	---
1 1515	330	0.256	0.239	0.004	0.127	0.131	-----B	---
1 1530	345	0.272	0.264	0.003	0.125	0.128	-----	---
1 1545	360	0.289	0.274	0.001	0.123	0.124	-----	---

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UNC M 008	NOX-UNC PPH C-16008	2,3-DHN PPH SP C-II	LNC4/C3=	N-C4 PPH DMS-1	PROPENE PPH DMS-1	T DEG C ANA-TEMP	PAN PPH ECD-1
---	---	0.0663	---	---	---	---	0.000
---	---	---	---	0.0005	0.0019	---	---
013	0.047	---	-0.0808	0.0101	0.0118	---	---
---	---	0.1113	---	---	---	---	---
070	0.294	---	---	---	---	---	---
072	0.292	0.1388	-0.0707	0.0099	0.0114	---	0.000
082	0.289	---	-0.0343	0.0101	0.0112	25.8	---
098	0.285	---	0.0000	0.0102	0.0110	25.9	---
115	0.279	---	---	---	---	25.8	---
---	---	0.0590	0.0000	0.0101	0.0108	---	---
134	0.272	---	---	---	---	25.7	0.001
---	---	---	0.0609	0.0098	0.0098	---	---
152	0.266	0.0759	0.0561	0.0101	0.0102	25.7	---
167	0.258	---	0.0936	0.0101	0.0099	25.8	---
---	---	0.0567	---	---	---	---	---
177	0.248	---	0.1328	0.0101	0.0095	25.8	---
173	0.228	0.0441	0.2344	0.0101	0.0085	25.9	0.004
185	0.229	---	0.2444	0.0098	0.0083	25.8	---
175	0.211	0.0329	0.3390	0.0099	0.0075	26.1	---
177	0.206	---	0.4222	0.0098	0.0069	26.3	---
169	0.193	0.0255	---	---	---	26.3	0.010
169	0.188	---	---	---	---	26.3	---
163	0.179	0.0131	---	---	---	26.4	---
158	0.171	---	---	---	---	26.4	---
153	0.164	0.0082	---	---	---	26.4	0.018
147	0.155	---	---	---	---	26.5	---
144	0.150	0.0062	---	---	---	26.5	---
140	0.145	---	---	---	---	26.5	---
136	0.140	---	---	---	---	26.6	0.026
132	0.136	---	---	---	---	26.6	---
127	0.131	---	---	---	---	26.7	---
125	0.128	---	---	---	---	26.7	---
123	0.124	---	---	---	---	26.5	0.031

ITC-775
2,3-DIMETHYLNAPHTHALENE - NOX + TRACERS
1984 MARCH 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8 M.VOLTS ECD-1	RT=2.80 M.VOLTS 10'C-600	METHA PPM PN-1
1 841	-64	-----	0.0009	0.0001	0.0008	-----	-----	1
1 935	-10	-----A	-----	-----	-----	-----	-----	-----
1 945	0	-----	0.0009	0.0000	0.0007	-----	-----	-----
1 1045	60	-----A	0.0019	0.0001	0.0008	1.904	-----	-----
1 1145	120	-----A	0.0035	0.0004	0.0011	4.160	2.032	-----
1 1245	180	0.000	0.0042	0.0005	0.0011	6.224	2.984	-----
1 1345	240	0.000	0.0053	0.0008	0.0013	7.184	3.304	-----
1 1445	300	0.016	0.0059	0.0009	0.0014	7.280	3.144	-----
1 1545	360	0.097	0.0061	0.0011	0.0017	6.750C	2.944	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 841	-64	0.0003	0.0034	0.0034

----- NO DATA TAKEN

NOTES

- A SAMPLE OF ROOM AIR.
- B 2,3-DIMETHYLNAPHTHALENE ON TOP OF LUMPY PEAK.
- C STOPPED SAMPLING FOR 2,3-DMN AT THIS TIME.

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PAGE 3

	RT=0.8 M.VOLTS ECD-1	RT=2.80 M.VOLTS 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1
500	-----	-----	1.27	0.004	0.005	0.0006	0.0036
008	-----	-----	-----	-----	-----	-----	-----
007	-----	-----	-----	-----	-----	-----	-----
008	1.904	-----	-----	-----	-----	-----	-----
011	4.160	2.032	-----	-----	-----	-----	-----
011	6.224	2.984	-----	-----	-----	-----	-----
013	7.184	3.304	-----	-----	-----	-----	-----
014	7.280	3.144	-----	-----	-----	-----	-----
017	6.750C	2.944	-----	-----	-----	-----	-----

K.

ITC-776
NOX - AIR IRRADIATION
1984 MARCH 20

615: START WET FLUSH.
810: CHAMBER VERY WET, WILL FLUSH WITH DRY AIR TO 50% R.H.
848: STOP FLUSH.
WET BULB 65.5 F
DRY BULB 77 F
914: INJECTIONS: 3.56 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
930: 70% LIGHTS.
1132: DUMP BAG. QUARTZ TUBE IN PLACE.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.0	0.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.444	PPM
NO2-UNC	C-1600B	0.121	PPM
N-C4	DMS-1	0.0107	PPM
PROPENE	DMS-1	0.0114	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2200	DMS-1	RM-121; DINETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-776
NOX - AIR IRRADIATION
1984 MARCH 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C DMS-
1 848	-42	-----	-----	-----	-----	0.0003	0.0016	---
1 900	-30	0.000	0.000	0.062	0.062	0.0104	0.0111	0.00
1 915	-15	0.000	0.380	0.011	0.390	-----	-----	---
1 926	-4	-----	-----	-----	-----	-----	-----	---
1 930	0	0.000	0.444	0.121	0.564	0.0107	0.0114	0.00
1 945	15	0.000	0.437	0.125	0.560	0.0106	0.0108	0.04
1 1000	30	0.000	0.430	0.129	0.557	0.0103	0.0100	0.10
1 1015	45	0.001	0.425	0.130	0.553	0.0101	0.0098	0.14
1 1030	60	0.001	0.418	0.130	0.547	0.0103	0.0090	0.20
1 1045	75	0.001	-----	0.133	0.544	0.0101	0.0082	0.27
1 1100	90	0.001	0.406	0.133	0.538	0.0104	0.0082	0.30
1 1115	105	0.001	0.401	0.134	0.534	0.0102	0.0076	0.34
1 1120	110	-----	-----	-----	-----	-----	-----	---
1 1130	120	0.001	0.395	0.135	0.529	0.0100	0.0071	0.41

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHE PPH PN-
1 848	-42	0.0002	0.0001	1.19	0.004	0.005	0.0005	0.00

----- NO DATA TAKEN

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I-UNC PPM 600B	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3= DMS-1	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
-----	0.0003	0.0016	-----	-----	0.000	-----	0.0006
0.062	-----	-----	-----	-----	-----	-----	-----
0.390	0.0104	0.0111	0.0024	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	0.004	-----
0.564	0.0107	0.0114	0.0071	-----	-----	-----	-----
0.560	0.0106	0.0108	0.0425	25.2	-----	-----	-----
0.557	0.0103	0.0100	0.1008	25.2	-----	-----	-----
0.553	0.0101	0.0098	0.1651	25.3	-----	-----	-----
0.547	0.0103	0.0090	0.2039	26.1	-----	-----	-----
0.544	0.0101	0.0082	0.2704	26.4	-----	-----	-----
0.538	0.0104	0.0082	0.3081	26.6	-----	-----	-----
0.534	0.0102	0.0076	0.3680	26.8	-----	-----	-----
-----	-----	-----	-----	-----	-----	0.012	-----
0.529	0.0100	0.0071	0.4105	26.7	-----	-----	-----

HANE PPM N-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0.004	0.005	0.0005	0.0031	0.0002	0.0029	0.0027

ITC-778
PYRROLE - NOX
1984 MARCH 29

0645: FLUSH ON.
0805: TOO WET.
0834: 78 F DRY BULB
65 F WET BULB
0908: INJECTIONS: 3.4 ML NO
0.64 ML NO2
18 MICRO L PYRROLE

1015: 70% LIGHTS
1127: DUMP BAG.
1315: START FLUSH.
1640: STOP FLUSH.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.9	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.463	PPM
NO	T 14B-1	0.381	PPM
NO2-UNC	C-1600B	0.055	PPM
NO2-UNC	T 14B-1	0.108	PPM
PYRROLE	SP C-20M	0.967	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2701	SP C-20M	RM-103; C20M/KOH SUPERPAK; FID(TENAX)
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DM8-1	RM-121; DIMETHYLSULFOLANE GC; FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-778
PYRROLE - NOX
1984 MARCH 29

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NO
1 837	-98	-----	-----	-----	-----	-----	-----	-
1 900	-75	0.010	0.000	-----	0.003	-----	0.003	-
1 915	-60	0.011	0.457	-----	0.071	-----	0.527	-
1 919	-56	-----	-----	-----	-----	-----	-----	-
1 929	-46	-----	-----	-----	-----	-----	-----	-
1 944	-31	-----	-----	-----	-----	-----	-----	-
1 1000	-15	0.009	0.468	0.378	0.054	0.109	0.520	-
1 1015	0	0.011	0.463	0.381	0.055	0.108	0.517	-
1 1030	15	0.361	0.016	0.014	0.284	0.330	0.299	-
1 1045	30	0.513	0.002	0.007	0.176	0.208	0.177	-
1 1100	45	0.521	0.001	0.007	0.159	0.188	0.160	-
1 1115	60	0.522	0.001	0.006	0.149	0.177	0.150	-

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N
1 837	-98	0.0011	0.0007	0.0001	1.43	0.003	0.005	C
1 1015	0	0.0012	0.0001	0.0002	-----	-----	-----	-
1 1045	30	0.0048	0.0019	0.0003	-----	-----	-----	-

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 837	-98	0.0017	0.0020

----- NO DATA TAKEN

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NC	NO2-UNC PPM	NOX-UNC PPM	NOX-UNC PPM	PYRROLE PPM	T DEG C	PAN PPM	HCHO PPM
DB	T 14B-1	C-1600B	T 14B-1	SP C-20H	ANA-TEMP	ECD-1	CA
--	-----	-----	-----	0.000	-----	0.000	-----
03	-----	0.003	-----	-----	-----	-----	-----
71	-----	0.527	-----	-----	-----	-----	-----
--	-----	-----	-----	1.008	-----	-----	-----
--	-----	-----	-----	-----	-----	-----	0.004
--	-----	-----	-----	0.871	-----	-----	-----
54	0.109	0.520	0.485	-----	-----	-----	-----
55	0.108	0.517	0.486	0.967	27.0	0.000	-----
84	0.330	0.299	0.341	-----	25.8	-----	-----
76	0.208	0.177	0.212	0.003	25.6	0.001	-----
59	0.188	0.160	0.193	-----	25.6	-----	-----
49	0.177	0.150	0.182	-----	25.7	-----	0.012
NE	ETHANE PPM	PROPANE PPM	N-C4 PPM	I-C4 PPM	ETHENE PPM	PROPENE PPM	I-C4= PPM
	PN-1	DMS-1	DMS-1	DMS-1	PN-1	DMS-1	DMS-1
43	0.003	0.005	0.0003	0.0006	0.0014	0.0017	0.0001
--	-----	-----	-----	-----	-----	-----	-----
--	-----	-----	-----	-----	-----	-----	-----

ITC-779
PYRROLE - NOX
1984 MARCH 30

0645: START WET FLUSH.
0818: STOP FLUSH. R.H. ~45% @ 80 F.
76 F DRY BULB
62 F WET BULB
0911: INJECTION: 3.4 ML NO
0921: INJECTIONS: 0.064 ML NO2
4.5 MICRO L PYRROLE

1015: 70% LIGHTS
1147: DUMP BAG.
1334: FLUSH BAG.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.1	0.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.453	PPM
NO	T 14B-1	0.391	PPM
NO2-UNC	C-1600B	0.076	PPM
NO2-UNC	T 14B-1	0.103	PPM
PYRROLE	SP C-20M	0.2663	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2701	SP C-20M	RM-103; C20M/KOH SUPERPAK; FID(TENAX)
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-779
PYRROLE - NOX
1984 MARCH 30

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX- PF T 14
1 851	-84	-----	-----	-----	-----	-----	-----	---
1 900	-75	0.012	0.000	0.002	0.003	0.015	0.002	0.
1 915	-60	0.009	0.430	0.391	0.012	0.022	0.441	0.
1 929	-46	-----	-----	-----	-----	-----	-----	---
1 937	-38	-----	-----	-----	-----	-----	-----	---
1 952	-23	-----	-----	-----	-----	-----	-----	---
1 1000	-15	0.005	0.455	0.392	0.074	0.101	0.528	0.
1 1015	0	0.012	0.453	0.391	0.076	0.103	0.529	0.
1 1030	15	0.019	0.339	0.313	0.176	0.174	0.513	0.
1 1045	30	0.026	0.197	0.184	0.288	0.284	0.483	0.
1 1100	45	0.052	0.120	0.117	0.330	0.327	0.449	0.
1 1115	60	0.061	0.098	0.099	0.328	0.322	0.424	0.
1 1130	75	0.062	0.090	0.095	0.318	0.314	0.407	0.
1 1145	90	0.069	0.089	0.095	0.308	0.303	0.396	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C PF DMS
1 851	-84	0.0006	0.0003	0.0001	1.23	0.005	0.004	0.0
1 1015	0	0.0003	0.0002	0.0000	-----	-----	-----	---
1 1045	30	0.0013	0.0001	0.0001	-----	-----	-----	---
1 1115	60	0.0016	0.0002	0.0002	-----	-----	-----	---
1 1145	90	0.0016	0.0002	0.0002	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 851	-84	0.0015	0.0017

----- NO DATA TAKEN

NOTES

A SHIFTING BASELINE.

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UNC PM 500B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX-UNC PPM T 14B-1	PYRROLE PPM SP C-20M	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA
				0.0000		0.000	
.003	0.015	0.002	0.017				
.012	0.022	0.441	0.410				
				0.2653			
							0.008
				0.2612			
.074	0.101	0.528	0.490				
.076	0.103	0.529	0.492	0.2663		0.000	
.176	0.174	0.513	0.484		25.3		
.288	0.284	0.483	0.466	0.1045	25.0	0.000	
.330	0.327	0.449	0.440		25.1		
.328	0.322	0.424	0.419	0.0212A	25.1	0.000	0.014
.318	0.314	0.407	0.407		25.2		
.308	0.303	0.396	0.394	0.0042A	25.1	0.000	
HANE PM -1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1
1.23	0.005	0.004	0.0002	0.0005	0.0021	0.0016	0.0002

ITC-780
NOX-AIR + PYRROLE
1984 APRIL 2

0645: BEGIN WET FLUSH.
0816: STOP FLUSH. R.H. 52% @ 80 F.
72 F DRY BULB
65 F WET BULB
0909: INJECTIONS: 3.4 ML NO
0.064 ML PROPENE
0.064 ML N-BUTANE
0.64 ML NO2
0930: 70% LIGHTS
1131: INJECTION: 1.8 MICRO L PYRROLE
1332: INJECTION: 1.8 MICRO L PYRROLE
1445: DUMP BAG. (GC COLUMN BLOWN OUT).
1454: START FLUSH.

T=0 AT 930 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.2	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.406	PPM
NO	T 14B-1	0.372	PPM
NO2-UNC	C-1600B	0.130	PPM
NO2-UNC	T 14B-1	0.122	PPM
N-C4	DMS-1	0.0109	PPM
PROPENE	DMS-1	0.0117	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2040	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2701	8P C-20M	RM-103; C20M/KOH SUPERPAK; FID(TENAX)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-780
NOX-AIR + PYRROLE
1984 APRIL 2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX- PP T 14
1 841	-49	-----	-----	-----	-----	-----	-----	-----
1 900	-30	0.011	0.000	0.002	0.002	0.009	0.001	0.
1 912	-18	-----	-----	-----	-----	-----	-----	-----
1 915	-15	0.011	0.411	0.372	0.132	0.121	0.541	0.
1 930	0	0.012	0.406	0.372	0.130	0.122	0.535	0.
1 945	15	0.011	0.403	0.374	0.131	0.123	0.533	0.
1 1000	30	0.012	0.399	0.374	0.130	0.121	0.528	0.
1 1015	45	0.004	0.394	0.372	0.128	0.125	0.521	0.
1 1030	60	0.005	0.390	0.371	0.130	0.125	0.518	0.
1 1045	75	0.004	0.384	0.369	0.133	0.126	0.516	0.
1 1100	90	0.005	0.382	0.369	0.131	0.127	0.512	0.
1 1115	105	0.010	0.379	0.367	0.130	0.128	0.508	0.
1 1130	120	0.010	0.375	0.365	0.132	0.129	0.506	0.
1 1135	125	-----	-----	-----	-----	-----	-----	-----
1 1145	135	0.010	0.348	0.321	0.151	0.152	0.498	0.
1 1200	150	0.012	0.291	0.278	0.191	0.188	0.481	0.
1 1215	165	0.014	0.259	0.251	0.219	0.209	0.476	0.
1 1230	180	0.019	0.240	0.236	0.226	0.217	0.465	0.
1 1245	195	0.020	0.226	0.226	0.230	0.222	0.455	0.
1 1300	210	0.015	0.218	0.219	0.233	0.223	0.449	0.
1 1315	225	0.021	0.214	0.216	0.233	0.226	0.446	0.
1 1330	240	0.021	0.210	0.213	0.231	0.225	0.439	0.
1 1337	247	-----	-----	-----	-----	-----	-----	-----
1 1345	255	0.021	0.180	0.177	0.248	0.250	0.426	0.
1 1400	270	0.031	0.139	0.141	0.271	0.268	0.409	0.
1 1415	285	0.042	0.117	0.124	0.275	0.275	0.391	0.
1 1430	300	0.036	0.109	0.117	0.272	0.273	0.379	0.

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UNC PM 600R	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600R	NOX-UNC PPM T 14B-1	PYRROLE PPM SP C-20M	LNC4/C3=	N-C4 PPM DMS-1	PROPENE PPM DMS-1
---	---	---	---	---	---	0.0002	0.0016
.002	0.009	0.001	0.009	---	---	0.0108	0.0117
---	---	---	---	---	-0.0069	---	---
.132	0.121	0.541	0.489	---	---	---	---
.130	0.122	0.535	0.491	---	-0.0023	0.0109	0.0117
.131	0.123	0.533	0.494	---	0.0542	0.0110	0.0111
.130	0.121	0.528	0.491	---	0.1137	0.0109	0.0104
.128	0.125	0.521	0.494	---	0.1690	0.0109	0.0099
.130	0.125	0.518	0.492	---	0.2089	0.0107	0.0093
.133	0.126	0.516	0.491	---	0.2613	0.0107	0.0088
.131	0.127	0.512	0.493	---	0.3007	0.0107	0.0085
.130	0.128	0.508	0.492	---	0.3520	0.0104	0.0078
.132	0.129	0.506	0.491	---	0.3971	0.0105	0.0076
---	---	---	---	0.0982	---	---	---
.151	0.152	0.498	0.470	---	0.4548	0.0100	0.0068
.191	0.188	0.481	0.465	0.0568	0.5268	0.0103	0.0065
.219	0.209	0.476	0.458	---	0.6068	0.0100	0.0058
.226	0.217	0.465	0.451	0.0229	0.6634	0.0100	0.0055
.230	0.222	0.455	0.445	---	0.7486	0.0098	0.0049
.233	0.223	0.449	0.439	0.0131	0.7890	0.0099	0.0048
.233	0.226	0.446	0.439	---	0.8426	0.0099	0.0045
.231	0.225	0.439	0.434	---	0.9445	0.0095	0.0040
---	---	---	---	0.0985	---	---	---
.248	0.250	0.426	0.425	---	0.9750	0.0094	0.0038
.271	0.268	0.409	0.408	0.0466	1.063	0.0092	0.0034
.275	0.275	0.391	0.396	---	1.118	0.0092	0.0032
.272	0.273	0.379	0.388	---	---	---	---

ITC-780
NOX-AIR + PYRROLE
1984 APRIL 2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHA PPM PN-1
1 841	-49	-----	0.000	-----	0.0020	0.0001	0.0001	0.
1 922	-8	-----	-----	0.042	-----	-----	-----	-----
1 945	15	25.0	-----	-----	-----	-----	-----	-----
1 1000	30	24.8	-----	-----	-----	-----	-----	-----
1 1015	45	24.8	-----	-----	-----	-----	-----	-----
1 1030	60	24.9	-----	-----	-----	-----	-----	-----
1 1045	75	24.9	-----	-----	-----	-----	-----	-----
1 1100	90	25.0	-----	-----	-----	-----	-----	-----
1 1115	105	25.1	-----	-----	-----	-----	-----	-----
1 1120	110	-----	-----	0.024	-----	-----	-----	-----
1 1130	120	25.1	0.000	-----	0.0032	0.0000	0.0001	-----
1 1145	135	25.3	-----	-----	-----	-----	-----	-----
1 1200	150	25.1	-----	-----	-----	-----	-----	-----
1 1215	165	25.5	-----	-----	-----	-----	-----	-----
1 1230	180	25.4	0.000	0.006	0.0068	0.0011	0.0004	-----
1 1245	195	25.3	-----	-----	-----	-----	-----	-----
1 1300	210	25.6	-----	-----	-----	-----	-----	-----
1 1315	225	25.4	-----	-----	-----	-----	-----	-----
1 1330	240	25.3	0.000	-----	0.0038	0.0006	0.0003	-----
1 1345	255	25.7	-----	-----	-----	-----	-----	-----
1 1400	270	25.5	-----	-----	-----	-----	-----	-----
1 1415	285	25.4	-----	-----	-----	-----	-----	-----
1 1420	290	-----	-----	0.016	-----	-----	-----	-----
1 1430	300	25.5	-----	-----	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 841	-49	0.0002	0.0011	0.0013

----- NO DATA TAKEN

[illegible][illegible]

ITC-781
SYNTHETIC FUEL #1 - NOX
1984 APRIL 5

0645: BEGIN FLUSH.
0805: WET AIR ON.
0825: STOP FLUSH. R.H. ~48% @ 80 F.
76 F DRY BULB
65 F WET BULB
0903: INJECTIONS: 3.4 ML NO
0.64 ML NO2
0900: INJECTION: 240 MICRO L SYNTHETIC FUEL #1
1030: 70% LIGHTS
1327: MONITOR #410 VACUUM LINE REPAIRED.
1435: DUMP BAG. SET FLUSH FOR 3 HOURS WITH LIGHTS
AND 2 HOURS WITHOUT LIGHTS.

T=0 AT 1030 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	R.DEV	UNITS
T	ANA-TEMP	25.4	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.416	PPH
NO2-IINC	C-1600B	0.098	PPH
N-C6	DB-5C-1	0.8375	PPH
CYC-C6	DB-5C-1	0.4746	PPH
N-C7	DB-5C-1	1.0967	PPH
MECYC-C6	DB-5C-1	0.7856	PPH
N-C8	DB-5C-1	1.0125	PPH
ETCYC-C6	DB-5C-1	0.1309	PPH
N-C14	SP C-II	0.1043	PPH
TOLUENE	DB-5C-1	0.4886	PPH
P-XYL	DB-5C-1	0.1070	PPH
135-TM9	DB-5C-1	0.1317	PPH
I-C3-BZ	DB-5C-1	0.0919	PPH
NAPHTHAL	SP C-II	0.1229	PPH
TETRALIN	SP C-II	0.1723	PPH
TETRALIN	DB-5C-1	0.2405	PPH
2-NENAPH	SP C-II	0.1273	PPH
2,3-BMN	SP C-II	0.0456	PPH

ITC-781
SYNTHETIC FUEL #1 - NOX
1984 APRIL 5

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC; FID
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP; GC; FID
2702	SP C-II	RM-1031 SUPERPAK-II; FID(TENAX)
2100	PN-1	RM-1211 POROPAK-N GC; FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC; ECD
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-781
SYNTHETIC FUEL #1 - NOX
1984 APRIL 5

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N- P DR-
1 900	-90	0.012	-----	0.000	0.001	0.001	-----	--
1 915	-75	0.206	-----	0.431	0.097	0.526	-----	--
1 923	-67	-----	-----	-----	-----	-----	-----	?
1 1015	-15	0.079	-----	0.420	0.099	0.517	-----	--
1 1030	0	0.070	-----	0.416	0.098	0.514	-----	0.
1 1045	15	0.054	-----	0.373	0.142	0.514	24.8	--
1 1100	30	0.044	-----	0.333	0.178	0.510	24.7	--
1 1115	45	0.043	-----	0.290	0.218	0.506	24.8	--
1 1130	60	0.026	-----	0.245	0.258	0.502	24.9	0.
1 1145	75	0.024	-----	0.204	0.296	0.499	25.0	--
1 1200	90	0.023	-----	0.162	0.334	0.494	25.0	--
1 1215	105	0.016	-----	0.123	0.366	0.487	25.1	--
1 1230	120	0.015	-----	0.091	0.391	0.480	25.2	0.
1 1245	135	0.016	-----	0.066	0.409	0.473	25.2	--
1 1300	150	0.015	-----	0.048	0.416	0.464	25.3	--
1 1315	165	0.023	-----	0.037	0.420	0.456	25.4	--
1 1330	180	0.178	0.157	0.029	0.417	0.445	25.7	0.
1 1345	195	0.233	0.203	0.026	0.407	0.431	25.5	--
1 1400	210	0.282	0.247	0.022	0.400	0.420	25.4	--
1 1415	225	0.331	0.296	0.018	0.393	0.410	25.8	--
1 1430	240	0.380	0.343	0.017	0.382	0.398	25.5	0.
1 1445	255	0.431	0.392	0.015	0.369	0.383	25.7	--
1 1500	270	0.481	0.442	0.014	0.357	0.369	25.7	--
1 1515	285	0.523	0.491	0.013	0.343	0.355	25.6	--
1 1530	300	0.578	0.545	0.013	0.331	0.342	25.9	0.
1 1545	315	0.625	0.588	0.012	0.316	0.326	25.7	--
1 1600	330	0.673	0.636	0.011	0.302	0.312	25.6	--
1 1615	345	0.721	0.677	0.010	0.291	0.300	25.9	--
1 1630	360	0.751	0.714	0.010	0.275	0.284	25.8	0.

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-UNC PM 600B	NOX-UNC PPM C-1600B	T DEG C ANA-TFMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1
.001	0.001	-----	-----	-----	-----	-----	-----
.097	0.526	-----	-----	-----	-----	-----	-----
-----	-----	-----	2.016A	0.6417A	1.110A	0.7930A	1.029A
.099	0.517	-----	-----	-----	-----	-----	-----
.098	0.514	-----	0.8375B	0.4746B	1.097B	0.7856B	1.013B
.142	0.514	24.8	-----	-----	-----	-----	-----
.178	0.510	24.7	-----	-----	-----	-----	-----
.218	0.506	24.8	-----	-----	-----	-----	-----
.258	0.502	24.9	0.8209	0.4618	1.074	0.7663	0.9861
.296	0.499	25.0	-----	-----	-----	-----	-----
.334	0.494	25.0	-----	-----	-----	-----	-----
.366	0.487	25.1	-----	-----	-----	-----	-----
.391	0.480	25.2	0.8087	0.4559	1.055	0.7503	0.9670
.409	0.473	25.2	-----	-----	-----	-----	-----
.416	0.464	25.3	-----	-----	-----	-----	-----
.420	0.456	25.4	-----	-----	-----	-----	-----
.417	0.445	25.7	0.8042	0.4525	1.046	0.7404	0.9576
.407	0.431	25.5	-----	-----	-----	-----	-----
.400	0.420	25.4	-----	-----	-----	-----	-----
.393	0.410	25.8	-----	-----	-----	-----	-----
.382	0.398	25.5	0.7976	0.4458	1.036	0.7289	0.9471
.369	0.383	25.7	-----	-----	-----	-----	-----
.357	0.369	25.7	-----	-----	-----	-----	-----
.343	0.355	25.6	-----	-----	-----	-----	-----
.331	0.342	25.9	0.7949	0.4429	1.030	0.7197	0.9398
.316	0.326	25.7	-----	-----	-----	-----	-----
.302	0.312	25.6	-----	-----	-----	-----	-----
.291	0.300	25.9	-----	-----	-----	-----	-----
.275	0.284	25.8	0.7850	0.4360	1.010	0.7010	0.9179

2

ITC-781
SYNTHETIC FUEL #1 - NOX
1984 APRIL 5

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-RZ PPM DB-5C-1
1 837	-113	-----	0.0000	-----	-----	-----	-----
1 923	-67	0.1321A	-----C	0.4967A	0.1105A	0.1446A	0.0934A
1 944	-46	-----	0.1013	-----	-----	-----	-----
1 1030	0	0.1309B	0.1043	0.4886B	0.1070B	0.1317B	0.0919B
1 1130	60	0.1271	0.0979	0.4786	0.1022	0.1208	0.0866
1 1230	120	0.1241	0.0928	0.4714	0.1002	0.1089	0.0854
1 1330	180	0.1220	0.0929	0.4686	0.0986	0.0987	0.0847
1 1430	240	0.1197	0.0836	0.4655	0.0968	0.0885	0.0844
1 1530	300	0.1178	0.0868	0.4655	0.0949	0.0768	0.0842
1 1630	360	0.1140	0.0773	0.4574	0.0920	0.0680	0.0830

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS FCD-1
1 837	-113	0.000	-----	0.0004	0.0004	0.0001	-----
1 930	-60	-----	0.016	-----	-----	-----	-----
1 1030	0	0.000	-----	-----	-----	-----	-----
1 1130	60	0.001	0.018	-----	-----	-----	-----
1 1230	120	0.003	0.016	-----	-----	-----	0.032
1 1330	180	0.008	-----	-----	-----	-----	0.672
1 1430	240	0.017	0.016	-----	-----	-----	0.784
1 1530	300	0.027	0.018	-----	-----	-----	0.976
1 1620	350	-----	0.022	-----	-----	-----	-----
1 1630	360	0.035	-----	-----	-----	-----	0.960

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 837	-113	0.0019	0.0018	0.0002	0.0027	0.0024

----- NO DATA TAKEN

NOTES

- A FLAME WAS EXTINGUISHED AND REIGNITED EARLY IN CHROMATOGRAM.
- B FROM 923 TO 1630 NITROGEN TOGGLE VALVE WAS IN "OFF" POSITION.
- C PEAK OFFSCALE.

AD A147 786

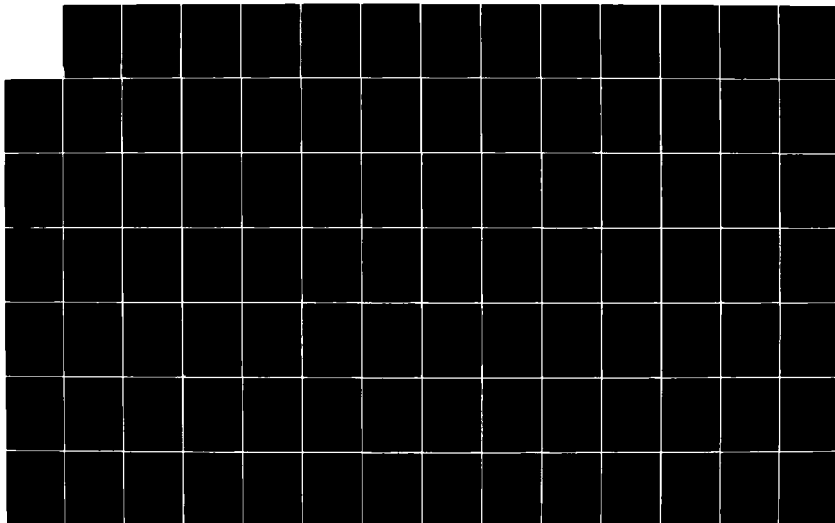
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FUELS PHASE I EXPERI... (U) CALIFORNIA UNIV RIVERSIDE
STATEWIDE AIR POLLUTION RESEARCH CE...
W P CARTER ET AL SEP 84

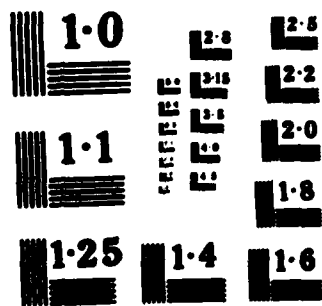
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UNCLASSIFIED

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XYL PPM SC-1	135-TMB PPM DB-SC-1	1-C3-RZ PPM DB-SC-1	NAPHTHAL PPM SP C-II	TETRALIN PPM SP C-II	TETRALIN PPM DB-SC-1	2-MENAPH PPM SP C-II	2,3-DMN PPM SP C-II
-----	-----	-----	0.0000	0.0000	-----	0.0000	0.0000
1105A	0.1446A	0.0934A	0.1236	0.1922	0.2937A	0.1304	0.0500
-----	-----	-----	0.1274	0.1711	-----	0.1194	0.0466
1070B	0.1317B	0.0919B	0.1229	0.1723	0.2405B	0.1273	0.0456
1022	0.1208	0.0866	0.1209	0.1580	0.2190	0.1235	0.0393
1002	0.1089	0.0854	0.1149	0.1429	0.2085	0.1073	0.0342
0986	0.0987	0.0847	0.1060	0.1371	0.1965	0.0903	0.0257
0968	0.0885	0.0844	0.0955	0.1264	0.1874	0.0800	0.0212
0949	0.0768	0.0842	0.0917	0.1182	0.1749	0.0684	0.0157
0920	0.0680	0.0830	0.0983	0.1157	0.1567	0.0607	0.0107

TONE PPM -600	MEK PPM 10'C-600	RT=0.8' M.VOLTS FCD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1
0004	0.0001	-----	1.24	0.003	0.005	0.0003	0.0006
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.032	-----	-----	-----	-----	-----
-----	-----	0.672	-----	-----	-----	-----	-----
-----	-----	0.784	-----	-----	-----	-----	-----
-----	-----	0.976	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.960	-----	-----	-----	-----	-----

TYLEN PPM I-1	ACETYLEN PPM DMS-1
0027	0.0024

IN CHROMATOGRAM.
IN 'OFF' POSITION.

ITC-7R2
NOX-AIR IRRADIATION
1984 APRIL 6

0645: START WET FLUSH.
0826: STOP FLUSH. R.H. 52% @ 80 F.
66 F WET BULB
75 F DRY BULB
0853: INJECTIONS: 3.4 ML NO
0.064 ML PROPENE
0.064 ML N-BUTANE
0.64 ML NO2

0915: 70% LIGHTS
1117: DUMP BAG.
1440: START FLUSH.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.D.FV	UNITS
T	ANA-TEMP	26.5	0.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.391	PPM
NO	T 14B-1	0.357	PPM
NO2-IINC	C-1600B	0.128	PPM
NO2-IINC	T 14B-1	0.117	PPM
N-C4	DMS-1	0.0104	PPM
PROPENE	DMS-1	0.0117	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2100	PN-1	RH-1211 POROPAK-N GC; FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC; FID

ITC-782
NOX-AIR IRRADIATION
1984 APRIL 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH C-1600B	NO PPH T 14B-1	NO2-IINC PPH C-1600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-PP T 14
1 824	-51	-----	-----	-----	-----	-----	-----	---
1 845	-30	0.001	0.001	-----	0.005	-----	0.005	---
1 858	-17	-----	-----	-----	-----	-----	-----	---
1 900	-15	0.000	0.394	0.000	0.125	0.469	0.518	0.
1 915	0	0.000	0.391	0.357	0.128	0.117	0.517	0.
1 930	15	0.001	0.388	0.360	0.128	0.116	0.514	0.
1 945	30	0.001	0.386	0.354	0.128	0.121	0.513	0.
1 1000	45	0.001	0.383	0.354	0.127	0.120	0.509	0.
1 1015	60	0.000	0.379	0.350	0.128	0.123	0.505	0.
1 1030	75	0.011	0.375	0.349	0.131	0.123	0.504	0.
1 1045	90	0.003	0.372	0.347	0.131	0.125	0.503	0.
1 1100	105	0.004	0.368	0.344	0.132	0.125	0.499	0.
1 1115	120	0.006	0.365	0.342	0.134	0.127	0.498	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PN-1	ETHA PP PN-
1 824	-51	0.000	-----	0.0003	0.0002	0.0001	1.13	0.
1 905	-10	-----	0.008	-----	-----	-----	-----	---
1 1105	110	-----	0.006	-----	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
1 824	-51	0.0015	0.0016

----- NO DATA TAKEN

NOTES

A ELECTRONIC SPIKE RIGHT ON PEAK--DIFFICULT TO DETERMINE ITS EXACT HEIGHT.

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PAGE 2

2-IINC PPM 1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600R	NOX-IINC PPM T 14R-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	I NC4/C3=	T DEG C ANA-TEMP
-----	-----	-----	-----	0.0002	0.0019	-----	-----
0.005	-----	0.005	-----	0.0101	0.0114	-0.0472	-----
0.125	0.469	0.518	0.466	-----	-----	-----	-----
0.128	0.117	0.517	0.472	0.0104	0.0117	-0.0518	-----
0.128	0.116	0.514	0.472	0.0103	0.0110	0.0012	26.4
0.128	0.121	0.513	0.472	0.0107	0.0102	0.0687	26.3
0.127	0.120	0.509	0.471	0.0102	0.0096	0.1271	26.4
0.128	0.123	0.505	0.471	0.0101	0.0091	0.1722	26.5
0.131	0.123	0.504	0.468	0.0100	0.0085	0.2301	26.5
0.131	0.125	0.503	0.468	0.0098	0.0080	0.2732	26.6
0.132	0.125	0.499	0.467	0.0100	0.0077	0.3260	26.7
0.134	0.127	0.498	0.467	0.0096A	0.0071	0.3663	26.7

ACETONE PPM C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1
0.0002	0.0001	1.13	0.004	0.005	0.0006	0.0030	0.0002
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----

TO DETERMINE ITS EXACT HEIGHT.

2

ITC-784
SYNTHETIC FUEL #1 - NOX
1984 APRIL 9

0645: BEGIN WET FLUSH.
0818: STOP FLUSH. R.H. ~48% @ 80 F.
65 F WET BULB
75 F DRY BULB
0855: INJECTIONS: 3.4 ML NO
0.64 ML NO2
480 MICRO L SYNTHETIC FUEL #1
1015: 70% LIGHTS
1630: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.8	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.433	PPM
NO2-UNC	C-1600B	0.063	PPM
N-C6	DB-5C-1	1.6676	PPM
CYC-C6	DB-5C-1	0.9439	PPM
N-C7	DB-5C-1	7.1988	PPM
MECYC-C6	DB-5C-1	1.5726	PPM
N-C8	DB-5C-1	7.0307	PPM
ETCYC-C6	DB-5C-1	0.2623	PPM
N-C14	SP C-II	0.2249	PPM
TOLUENE	DB-5C-1	0.9810	PPM
P-XYL	DB-5C-1	0.2150	PPM
135-TMB	DB-5C-1	0.2682	PPM
I-C3-B2	DB-5C-1	0.1793	PPM
NAPHTHAL	SP C-II	0.2807	PPM
TETRALIN	DB-5C-1	0.4513	PPM
TETRALIN	SP C-II	0.3638	PPM
2-MENAPH	SP C-II	0.3254	PPM
2,3-DNN	SP C-II	0.0959	PPM

ITC-784
SYNTHETIC FUEL #1 - NOX
1984 APRIL 9

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP; GC; FID

ITC-784
SYNTHETIC FUEL #1 - NOX
1984 APRIL 9

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-8410	NOZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C
1 845	-90	0.001	0.009	0.000	0.003	0.002	-----	-----
1 900	-75	0.001	0.301	0.445	0.054	0.497	-----	-----
1 906	-69	-----	-----	-----	-----	-----	-----	1.6
1 1000	-15	0.000	0.092	0.433	0.062	0.494	-----	-----
1 1015	0	0.000	0.065	0.433	0.063	0.494	-----	1.6
1 1030	15	0.001	0.062	0.388	0.102	0.489	27.3	-----
1 1045	30	0.002	0.042	0.345	0.138	0.483	26.3	-----
1 1100	45	0.003	0.040	0.295	0.186	0.480	26.4	-----
1 1115	60	0.006	0.031	0.242	0.234	0.475	26.6	1.6
1 1130	75	0.011	0.033	0.185	0.286	0.470	26.7	-----
1 1145	90	0.023	0.041	0.133	0.332	0.463	26.7	-----
1 1200	105	0.046	0.061	0.089	0.367	0.454	26.8	-----
1 1215	120	0.083	0.095	0.059	0.387	0.444	26.8	1.6
1 1230	135	0.133	0.153	0.043	0.390	0.431	26.9	-----
1 1245	150	0.194	0.213	0.035	0.386	0.419	26.9	-----
1 1300	165	0.260	0.285	0.029	0.375	0.402	26.8	-----
1 1315	180	0.329	0.354	0.026	0.363	0.387	26.9	1.6
1 1330	195	0.396	0.429	0.024	0.347	0.370	26.8	-----
1 1345	210	0.458	0.493	0.022	0.332	0.353	26.8	-----
1 1400	225	0.520	0.569	0.022	0.313	0.334	26.8	-----
1 1415	240	0.582	0.622	0.022	0.295	0.315	26.7	-----
1 1430	255	0.632	0.672	0.020	0.277	0.297	26.7	-----
1 1445	270	0.674	0.719	0.019	0.261	0.280	26.8	-----
1 1500	285	0.708	0.751	0.021	0.246	0.265	26.8	-----
1 1515	300	0.727	0.770	0.020	0.235	0.254	26.9	-----
1 1520	305	-----	-----	-----	-----	-----	-----	1.6
1 1530	315	0.743	0.775	0.020	0.226	0.245	27.0	-----
1 1545	330	0.746	0.785	0.019	0.218	0.236	26.9	-----
1 1600	345	0.744	0.782	0.019	0.211	0.231	26.9	-----
1 1615	360	0.733	0.779	0.019	0.207	0.226	26.5	1.6

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UNC M	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MFCYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1
00B							
003	0.002	-----	-----	-----	-----	-----	-----
054	0.497	-----	-----	-----	-----	-----	-----
---	-----	-----	1.696A	0.9607A	2.241A	1.606A	2.081A
062	0.494	-----	-----	-----	-----	-----	-----
063	0.494	-----	1.668	0.9439	2.199	1.573	2.031
102	0.489	27.3	-----	-----	-----	-----	-----
138	0.483	26.3	-----	-----	-----	-----	-----
186	0.480	26.4	-----	-----	-----	-----	-----
234	0.475	26.6	1.672	0.9431	2.202	1.572	2.038
286	0.470	26.7	-----	-----	-----	-----	-----
332	0.463	26.7	-----	-----	-----	-----	-----
367	0.454	26.8	-----	-----	-----	-----	-----
387	0.444	26.8	1.632	0.9198	2.155	1.528	1.971
390	0.431	26.9	-----	-----	-----	-----	-----
386	0.419	26.9	-----	-----	-----	-----	-----
375	0.402	26.8	-----	-----	-----	-----	-----
363	0.387	26.9	1.687	0.9481	2.214	1.568	2.066
347	0.370	26.8	-----	-----	-----	-----	-----
332	0.353	26.8	-----	-----	-----	-----	-----
313	0.334	26.8	-----	-----	-----	-----	-----
295	0.315	26.7	-----	-----	-----	-----	-----
277	0.297	26.7	-----	-----	-----	-----	-----
261	0.280	26.8	-----	-----	-----	-----	-----
246	0.265	26.8	-----	-----	-----	-----	-----
235	0.254	26.9	-----	-----	-----	-----	-----
---	-----	-----	1.637	0.9152	2.133	1.500	1.822
226	0.245	27.0	-----	-----	-----	-----	-----
218	0.236	26.9	-----	-----	-----	-----	-----
211	0.231	26.9	-----	-----	-----	-----	-----
207	0.226	26.5	1.624	0.9098	2.118	1.485	1.929

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ITC-784
SYNTHETIC FUEL #1 - NOX
1984 APRIL 9

CLOCK TIME DAY HR	FLAPSED TIME (MIN)	ETCYC-C6 PPH DB-5C-1	N-C14 PPH SP C-11	TOLUENE PPH DB-5C-1	P-XYL PPH DB-5C-1	135-TMB PPH DB-5C-1	I-C3-BZ PPH DB-5C-1	NAPHTHA PPH SP C-
1 830	-105	-----	0.0000	-----	-----	-----	-----	0.000
1 906	-69	0.2699A	-----	1.001A	0.2204A	0.2789A	0.1857A	-----
1 912	-63	-----	0.1712	-----	-----	-----	-----	0.19
1 948	-27	-----	0.2212	-----	-----	-----	-----	0.27
1 1015	0	0.2623	0.2249	0.9810	0.2150	0.2682	0.1795	0.28
1 1115	60	0.2629	0.2162	0.9781	0.2130	0.2525	0.1775	0.26
1 1215	120	0.2533	0.2123	0.9577	0.2046	0.2339	0.1728	0.23
1 1315	180	0.2609	0.1930	0.9884	0.2132	0.2312	0.1923	0.22
1 1415	240	-----	0.1904	-----	-----	-----	-----	0.21
1 1515	300	-----	0.1839	-----	-----	-----	-----	0.20
1 1520	305	0.2500	-----	0.9565	0.2117	0.1982	0.2088	-----
1 1615	360	0.2439	0.1870	0.9514	0.1969	0.1737	0.1716	0.21

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	RT=0.8' M.VOLTS FCD-1	METHAN PPH PN-1
1 832	-103	0.000	-----	0.0004	0.0002	0.0001	0.0000	1.
1 915	-60	-----	0.004	-----	-----	-----	-----	-----
1 1015	0	0.000	-----	-----	-----	-----	0.0000	-----
1 1115	60	0.001	0.002	-----	-----	-----	0.0000	-----
1 1215	120	0.004	0.008	-----	-----	-----	0.4480	-----
1 1315	180	0.016	-----	-----	-----	-----	0.9120	-----
1 1415	240	-----	0.049	-----	-----	-----	-----	-----
1 1515	300	0.0378	0.028	-----	-----	-----	1.3288	-----
1 1605	350	-----	0.036	-----	-----	-----	-----	-----
1 1615	360	0.049	-----	-----	-----	-----	1.472	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPH PN-1	PROPENE PPH DMS-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 832	-103	0.0024	0.0019	0.0002	0.0021	0.0019

----- NO DATA TAKEN

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IL 1 1-1	135-TMR PPH DB-5C-1	I-C3-BZ PPH DB-5C-1	NAPHTHAL PPH SP C-II	TETRALIN PPH DB-5C-1	TETRALIN PPH SP C-II	2-MENAPH PPH SP C-II	2,3-DMN PPH SP C-II
---	-----	-----	0.0000	-----	0.0000	0.0000	0.0000
204A	0.2789A	0.1857A	-----	0.4922A	-----	-----	-----
---	-----	-----	0.1912	-----	0.2553	0.2081	0.0776
---	-----	-----	0.2762	-----	0.3495	0.2994	0.1005
150	0.2482	0.1795	0.2807	0.4513	0.3638	0.3254	0.0959
130	0.2525	0.1775	0.2680	0.4240	0.3325	0.2757	0.0888
046	0.2339	0.1728	0.2319	0.4048	0.3074	0.2423	0.0770
132	0.2312	0.1923	0.2298	0.3986	0.2929	0.2288	0.0622
---	-----	-----	0.2133	-----	0.2864	0.1895	0.0496
---	-----	-----	0.2068	-----	0.2634	0.1623	0.0389
117	0.1982	0.2088	-----	0.3520	-----	-----	-----
969	0.1737	0.1716	0.2161	0.3288	0.2628	0.1593	0.0383

ONE M 600	HEK PPH 10'C-600	RT=0.8' M.VOLTS FCD-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1
002	0.0001	0.0000	1.22	0.003	0.005	0.0003	0.0006
---	-----	-----	-----	-----	-----	-----	-----
---	-----	0.0000	-----	-----	-----	-----	-----
---	-----	0.0000	-----	-----	-----	-----	-----
---	-----	0.4480	-----	-----	-----	-----	-----
---	-----	0.9120	-----	-----	-----	-----	-----
---	-----	1.3288	-----	-----	-----	-----	-----
---	-----	1.472	-----	-----	-----	-----	-----

LEN M 1	ACETYLEN PPH DMS-1
021	0.0019

ITC-784
SYNTHETIC FUEL #1 - NOX
1984 APRIL 9

NOTES

- A FROM 906 TO 1615 N2 TOGGLE VALVE WAS IN OFF POSITION.
- B G.C. WAS JUST TURNED BACK ON LESS THAN 5 MINUTES BEFORE SAMPLE WAS INJECTED. G.C. WAS OFF FOR AN UNKNOWN LENGTH OF TIME DUE TO A TRIPPED CIRCUIT BREAKER.

ITC-785
 SYNTHETIC FUEL #1 - NOX
 1984 APRIL 10

0645: BEGIN FLUSH.
 803: STOP FLUSH. R.H. 52% @ 80 F
 77.5 F DRY BULB
 66.5 F WET BULB
 855: INJECTIONS: 1.7 ML NO
 0.32 ML NO2
 240 MICRO L SYNTHETIC FUEL #1
 1015: 70% LIGHTS
 1616: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.214	PPM
NO2-UINC	C-1600B	0.050	PPM
N-C6	DB-5C-1	0.8590	PPM
CYC-C6	DB-5C-1	0.4850	PPM
N-C7	DB-5C-1	1.1320	PPM
MECYC-C6	DB-5C-1	0.8120	PPM
N-C8	DB-5C-1	1.0420	PPM
ETCYC-C6	DB-5C-1	0.1350	PPM
N-C14	SP C-II	0.1150	PPM
TOLUENE	DB-5C-1	0.5040	PPM
P-XYL	DB-5C-1	0.1100	PPM
135-TMB	DB-5C-1	0.1370	PPM
I-C3-RZ	DB-5C-1	0.0910	PPM
NAPHTHAL	SP C-II	0.1286	PPM
TETRALIN	SP C-II	0.1800	PPM
TETRALIN	DB-5C-1	0.2210	PPM
2-MENAPH	SP C-II	0.1354	PPM
2,3-DMM	SP C-II	0.0500	PPM

ITC-785
SYNTHETIC FUEL #1 - NOX
1984 APRIL 10

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP; GC; FID
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC- PF DB-5
1 845	-90	0.000	0.007	0.009	0.016	-----	-----	---
1 900	-75	0.073	0.413	0.092	0.504	-----	-----	---
1 908	-67	-----	-----	-----	-----	-----	0.8200A	0.4
1 1000	-15	0.039	0.426	0.100	0.525	-----	-----	---
1 1015	0	0.024	0.214	0.050	0.263	-----	0.8590	0.4
1 1030	15	0.025	0.187	0.076	0.263	27.4	-----	---
1 1045	30	0.015	0.153	0.108	0.260	26.2	-----	---
1 1100	45	0.022	0.119	0.141	0.259	26.5	-----	---
1 1115	60	0.024	0.087	0.169	0.256	26.5	0.8200	0.4
1 1130	75	0.042	0.060	0.192	0.252	26.8	-----	---
1 1145	90	0.072	0.043	0.202	0.245	26.7	-----	---
1 1200	105	0.105	0.034	0.205	0.238	26.7	-----	---
1 1215	120	0.160	0.027	0.205	0.232	26.9	0.8050	0.4
1 1230	135	0.203	0.025	0.199	0.224	26.7	-----	---
1 1245	150	0.260	0.023	0.192	0.214	27.0	-----	---
1 1300	165	0.304	0.020	0.186	0.205	27.0	-----	---
1 1315	180	0.360	0.019	0.181	0.200	26.9	0.8370	0.4
1 1330	195	0.408	0.019	0.172	0.190	26.9	-----	---
1 1345	210	0.447	0.017	0.165	0.182	27.0	-----	---
1 1400	225	0.490	0.018	0.158	0.175	27.0	-----	---
1 1415	240	0.518	0.016	0.152	0.168	26.9	0.8210	0.4
1 1430	255	0.543	0.016	0.145	0.161	27.0	-----	---
1 1445	270	0.558	0.015	0.141	0.156	27.0	-----	---
1 1500	285	0.581	0.013	0.139	0.152	27.1	-----	---
1 1515	300	0.591	0.015	0.133	0.148	27.0	0.7070	0.4
1 1530	315	0.591	0.014	0.132	0.144	27.0	-----	---
1 1545	330	0.598	0.013	0.130	0.143	27.1	-----	---
1 1600	345	0.598	0.014	0.128	0.141	27.2	-----	---

----- NO DATA TAKEN

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ITC-785
SYNTHETIC FUEL #1 - NOX
1984 APRIL 10

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC PI DB-1
1 1615	360	0.598	0.013	0.128	0.140	27.0	0.7020	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TFTR PI SP I
1 822	-113	-----	-----	-----	-----	-----	-----	---
1 830	-105	0.0000	-----	-----	-----	-----	0.0000	0.
1 908	-67	-----	0.4800A	0.1040A	0.1260A	0.0810A	-----	---
1 910	-65	0.1194	-----	-----	-----	-----	0.1311	0.
1 935	-40	0.1123	-----	-----	-----	-----	0.1295	0.
1 1015	0	0.1150	0.5040	0.1100	0.1370	0.0910	0.1286	0.
1 1115	60	0.1207	0.4790	0.1030	0.1220	0.0870	0.1261	0.
1 1215	120	0.1086B	0.4710	0.1000	0.1090	0.0850	0.1123	0.
1 1315	180	0.1035	0.4900	0.1030	0.1010	0.0880	0.1160	0.
1 1415	240	0.0843	0.4810	0.1000	0.0930	0.0870	0.1087	0.
1 1515	300	0.0919	0.4150	0.0850	0.0720	0.0750	0.1117	0.
1 1615	360	-----	0.4010	0.0840	0.0690	0.0750	-----	---
1 1616	361	0.0938	-----	-----	-----	-----	0.1007	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' H.VOLTS ECD-1	METHANE PPM PN-1	ETH P PN
1 822	-113	-----	0.0004	0.0002	0.0001	0.000	1.40	0
1 920	-55	0.107	-----	-----	-----	-----	-----	---
1 1015	0	-----	-----	-----	-----	0.000	-----	---
1 1115	60	0.018	-----	-----	-----	0.000	-----	---
1 1215	120	0.016	-----	-----	-----	0.480	-----	---
1 1315	180	0.008	-----	-----	-----	0.736	-----	---
1 1415	240	0.042	-----	-----	-----	0.944	-----	---
1 1515	300	0.117	-----	-----	-----	0.944	-----	---
1 1615	360	-----	-----	-----	-----	0.928	-----	---

----- NO DATA TAKEN

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PAGE 3

-UNC PM 600B	T DEG C ANA-TFMP	N-C6 PPH DB-5C-1	CYC-C6 PPH DB-5C-1	N-C7 PPH DB-5C-1	MECYC-C6 PPH DB-5C-1	N-C8 PPH DB-5C-1	ETCYC-C6 PPH DB-5C-1
.140	27.0	0.7020	0.4030	0.9120	0.6290	0.8340	0.1040

-TMB PM 5C-1	I-C3-BZ PPH DB-5C-1	NAPHTHAI PPH SP C-II	TFTRAI IN PPH SP C-II	TETRALIN PPH DB-5C-1	2-MFNAPH PPH SP C-II	2,3-DHN PPH SP C-II	PAN PPH ECD-1
-----	-----	-----	-----	-----	-----	-----	0.000
1260A	0.0810A	0.0000	0.0000	0.2150A	0.0000	0.0000	-----
-----	-----	0.1311	0.1812	-----	0.1595	0.0466	-----
-----	-----	0.1295	0.1730	-----	0.1540	0.0516	-----
1370	0.0910	0.1286	0.1800	0.2210	0.1354	0.0500	0.000
1220	0.0870	0.1261	0.1829	0.2060	0.1286	0.0424	0.001
1090	0.0850	0.1123	0.1532	0.1960	0.1055B	0.0331	0.005
1010	0.0880	0.1160	0.1404	0.1900	0.0991	0.0285	0.013
0930	0.0870	0.1087	0.1364	0.1760	0.0861	0.0233	0.022
0720	0.0750	0.1117	0.1299	0.1510	0.0838	0.0192	0.028
0690	0.0750	-----	-----	0.1460	-----	-----	0.031
-----	-----	0.1007	0.1212	-----	0.0746	0.0184	-----

EK PM -600	RT=0.8' M.VOLTS ECD-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1
0001	0.000	1.40	0.005	0.005	0.0002	0.0006	0.0040
-----	-----	-----	-----	-----	-----	-----	-----
-----	0.000	-----	-----	-----	-----	-----	-----
-----	0.000	-----	-----	-----	-----	-----	-----
-----	0.480	-----	-----	-----	-----	-----	-----
-----	0.736	-----	-----	-----	-----	-----	-----
-----	0.944	-----	-----	-----	-----	-----	-----
-----	0.944	-----	-----	-----	-----	-----	-----
-----	0.928	-----	-----	-----	-----	-----	-----

ITC-785
SYNTHETIC FUEL #1 - NOX
1984 APRIL 10

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 822	-113	0.0018	0.0002	0.0037	0.0045

----- NO DATA TAKEN

NOTES

- A FROM 908 TO 1415 THE N2 TOGGLE VALUE IN OFF POSITION.
- B BASELINE SUBJECTIVE. INTERFERENCE PEAK BENEATH THESE TWO COMPOUNDS.

ITC-7R6
SYNTHETIC FUEL #1 + FURAN + NOX
1984 APRIL 11

0645: BEGIN FLUSH.
0810: FLUSH OFF. R.H. 52% @ 80 F.
65 F WET BULB
73 F DRY BULB
0836: INJECTION: 9.3 MICRO L INTO ITC.
0859: INJECTIONS: 3.4 ML NO
0.64 ML NO2
480 MICROL I SYNTHETIC FUEL #1
1015: 70% LIGHTS.
1446: DUMP BAG.
1600: 5 HOUR FLUSH -- 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.D.F.V	UNITS
T	ANA-TEMP	26.9	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.432	PPM
NO2-IINC	C-1600B	0.059	PPM
FURAN	C-20H	0.3710	PPM
N-C6	DB-5C-1	1.1834	PPM
CYC-C6	DB-5C-1	0.7344	PPM
N-C7	DB-5C-1	1.7727	PPM
MECYC-C6	DB-5C-1	1.1463	PPM
N-C8	DB-5C-1	1.6686	PPM
ETCYC-C6	DB-5C-1	0.2153	PPM
N-C14	SP C-II	0.2095	PPM
TOLUENE	DB-5C-1	0.8136	PPM
P-XYL	DB-5C-1	0.1955	PPM
135-TMB	DB-5C-1	0.3753	PPM
I-C3-BZ	DB-5C-1	0.1858	PPM
NAPHTHAL	SP C-II	0.2626	PPM
TETRALIN	SP C-II	0.3289	PPM
TETRALIN	DB-5C-1	0.2458	PPM
2-MENAPH	SP C-II	0.2994	PPM
2,3-DHN	SP C-II	0.0981	PPM

ITC-786
SYNTHETIC FUEL #1 + FURAN + NOX
1984 APRIL 11

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-1211 POROPAK-N GC: FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC: ECD
1400	C-20M	RM-1211 C-20M/DC-703 GC: FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC: FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC: FID
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP, GC: FID
8410	MO3-8410	MONITOR LABS R410 O3 ANALYZER (CHEMIL.)
3378	n-3378	NASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
2702	SP C-II	RM-1031 SUPERPAK-II: FID(TENAX)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH MO3-8410	OZONE PPH D-3378	NO PPH C-1600B	NO2-UNC PPH C-1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TEMP	FURAN PPH C-20
1 825	-110	-----	-----	-----	-----	-----	-----	0.00
1 842	-93	-----	-----	-----	-----	-----	-----	0.37
1 848	-87	-----	-----	-----	-----	-----	-----	0.37
1 900	-75	0.001	0.000	0.346	0.055	0.400	-----	----
1 915	-60	0.001	0.356	0.437	0.055	0.491	-----	----
1 1000	-15	0.001	0.104	0.435	0.057	0.490	-----	----
1 1015	0	0.001	0.071	0.432	0.059	0.489	-----	----
1 1030	15	0.002	0.064	0.394	0.096	0.489	27.3	----
1 1045	30	0.003	0.051	0.333	0.152	0.483	26.3	----
1 1100	45	0.007	0.035	0.249	0.230	0.477	26.2	----
1 1115	60	0.021	0.041	0.148	0.322	0.469	26.6	----
1 1130	75	0.090	0.095	0.062	0.390	0.450	26.7	----
1 1145	90	0.284	0.371	0.029	0.375	0.403	26.9	----
1 1200	105	0.523	0.591	0.024	0.322	0.344	26.8	----
1 1215	120	0.621	0.720	0.022	0.294	0.316	26.9	----
1 1230	135	0.636	0.750	0.022	0.286	0.307	27.0	----
1 1245	150	0.625	0.749	0.022	0.282	0.303	26.8	----
1 1300	165	0.605	0.729	0.022	0.282	0.303	26.8	----
1 1315	180	0.586	0.710	0.021	0.282	0.303	26.8	----
1 1330	195	0.566	0.690	0.021	0.280	0.301	27.0	----
1 1345	210	0.552	0.645	0.021	0.281	0.301	27.0	----
1 1400	225	0.541	0.660	0.021	0.281	0.301	27.0	----
1 1415	240	0.527	0.640	0.020	0.280	0.300	27.0	----
1 1430	255	0.515	0.624	0.021	0.279	0.299	27.1	----
1 1445	270	0.504	0.621	0.021	0.279	0.299	27.1	----

----- NO DATA TAKEN

27-JUL-84
PAGE 2

D

ID
FID
MIL.)

1506A

2-IINC PPH 1600B	NOX-UNC PPH C-1600B	T DEG C ANA-TFMP	FURAN PPH C-20H	N-C6 PPH DB-5C-1	CYC-C6 PPH DB-5C-1	N-C7 PPH DB-5C-1	MECYC-C6 PPH DB-5C-1
-----	-----	-----	0.0000	-----	-----	-----	-----
-----	-----	-----	0.3703	-----	-----	-----	-----
-----	-----	-----	0.3711	-----	-----	-----	-----
0.055	0.400	-----	-----	-----	-----	-----	-----
0.055	0.491	-----	-----	1.180	0.7422	1.800	1.168
0.057	0.490	-----	-----	-----	-----	-----	-----
0.059	0.489	-----	-----A	1.183	0.7344	1.773	1.146
0.096	0.489	27.3	-----	-----	-----	-----	-----
0.152	0.483	26.3	-----	-----	-----	-----	-----
0.230	0.477	26.2	-----	-----	-----	-----	-----
0.322	0.469	26.6	-----	-----R	0.8537	1.875	1.180
0.390	0.450	26.7	-----	-----	-----	-----	-----
0.375	0.403	26.9	-----	-----	-----	-----	-----
0.372	0.344	26.8	-----	-----	-----	-----	-----
0.294	0.316	26.9	-----	1.099	0.6681	1.670	1.079
0.286	0.307	27.0	-----	-----	-----	-----	-----
0.282	0.303	26.8	-----	-----	-----	-----	-----
0.282	0.303	26.8	-----	-----	-----	-----	-----
0.282	0.303	26.8	-----	1.075	0.6498	1.621	1.043
0.280	0.301	27.0	-----	-----	-----	-----	-----
0.281	0.301	27.0	-----	-----	-----	-----	-----
0.281	0.301	27.0	-----	-----	-----	-----	-----
0.280	0.300	27.0	-----	1.192	0.7168	1.773	1.132
0.279	0.299	27.1	-----	-----	-----	-----	-----
0.279	0.299	27.1	-----	-----	-----	-----	-----

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ITC-786
SYNTHETIC FUEL #1 + FURAN + NOX
1984 APRIL 11

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C8 PPM DB-5C-1	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-R PPM DB-5C-
1 825	-110	-----	-----	0.0000	-----	-----	-----	-----
1 915	-60	1.695	0.2188	-----	0.8229	0.1983	0.3793	0.189
1 916	-59	-----	-----	0.2035	-----	-----	-----	-----
1 942	-33	-----	-----	0.2152	-----	-----	-----	-----
1 1015	0	1.669	0.2153	0.2095	0.8136	0.1955	0.3753	0.185
1 1115	60	1.630	0.2107	0.2217	0.8185	0.1906	0.3466	0.183
1 1215	120	1.553	0.1976	0.2069	0.7825	0.1788	0.2706	0.185
1 1315	180	1.500	0.1906	0.1760C	0.7522	0.1734	0.2483	0.171
1 1345	210	-----	-----	0.1782	-----	-----	-----	-----
1 1415	240	1.629	0.2048	0.1725	0.8017	0.1840	0.2592	0.184

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	2,3-DMN PPM SP C-II	PAN PPM ECB-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8 M.VOLT FCD-1
1 825	-110	0.0000	0.000	-----	0.0005	0.0002	0.0001	0.000
1 916	-59	0.0935	-----	-----	-----	-----	-----	-----
1 920	-55	-----	-----	0.016	-----	-----	-----	-----
1 942	-33	0.1001	-----	-----	-----	-----	-----	-----
1 1015	0	0.0981	0.000	-----	-----	-----	-----	0.000
1 1115	60	0.0831	0.002	0.034	-----	-----	-----	0.368
1 1215	120	0.0556	0.020	0.034	-----	-----	-----	1.16
1 1315	180	0.0428C	0.031	-----	-----	-----	-----	1.40
1 1345	210	0.0551	-----	-----	-----	-----	-----	-----
1 1415	240	0.0419	0.033	0.032	-----	-----	-----	1.20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 825	-110	0.0006	0.0040	0.0019	0.0002	0.0024	0.0028

----- NO DATA TAKEN

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PAGE 3

LUENE PPM -5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-R7 PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM SP C-II	TETRALIN PPM DB-5C-1	2-MENAPH PPM SP C-II
-----	-----	-----	-----	0.0000	0.0000	-----	0.0000
.8229	0.1983	0.3793	0.1890	-----	-----	0.2450	-----
-----	-----	-----	-----	0.2526	0.3338	-----	-----D
-----	-----	-----	-----	0.2531	0.3439	-----	0.2874
.8136	0.1955	0.3753	0.1858	0.2626	0.3289	0.2458	0.2994
.8185	0.1906	0.3466	0.1833	0.2305	0.3329	0.2337	0.2407
.7825	0.1788	0.2706	0.1850	0.2124	0.2761	0.1788	0.1888
.7522	0.1734	0.2483	0.1710	0.1969C	0.2402C	0.1924	0.1659C
-----	-----	-----	-----	0.2067	0.2615	-----	0.2213
.8017	0.1840	0.2592	0.1841	0.2151	0.2676	0.2062	0.1616

ETALD PPM C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS FCD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1
.0005	0.0002	0.0001	0.0000	-1.24	0.007	0.005	0.0003
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.0000	-----	-----	-----	-----
-----	-----	-----	0.3680	-----	-----	-----	-----
-----	-----	-----	1.168	-----	-----	-----	-----
-----	-----	-----	1.408	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	1.280	-----	-----	-----	-----

-C4= PPM MS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
.0002	0.0024	0.0028

ITC-786
SYNTHETIC FUEL #1 + FURAN + NOX
1984 APRIL 11

NOTES

- A OTHER PEAKS INTERFERED WITH FURAN.
- B FLAME EXTINGUISHED ITSELF.
- C TEMPERATURE PROGRAM BEGUN 0.5 MIN. LATER THAN IS STANDARD. R.T.'S ARE OFF. SUSPECT ENTIRE SAMPLE GIVES UNUSABLE DATA.
- D WIDTH AT 1/2 HEIGHT UNOBTAINABLE BECAUSE N-C14 AND 2-MENAPH NOT WELL ENOUGH RESOLVED.

ITC-787
NOX-AIR IRRADIATION
1984 APRIL 12

0820: BEGIN WET FLUSH.
0915: STOP FLUSH. R.H. 50%
67 F WET BULB
80 F DRY BULB
0954: INJECTIONS: 1.7 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

1015: 70% LIGHTS
1216: DUMP BAG.
1224: START DRY FLUSH.
1440: FLUSH OFF.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.D.F.V	UNITS
T	ANA-TEMP	26.7	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600R	0.206	PPM
NO2-UNC	C-1600B	0.046	PPM
N-C4	DMS-1	0.0103	PPM
PROPENE	DMS-1	0.0110	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-400 GC; FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-787
NOX-AIR IRRADIATION
1984 APRIL 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	070NE PPM N-337R	NO PPM C-1600B	NO2-IINC PPM C-1600B	NOX-IINC PPM C-1600B	N-C4 PPM DMS-1	PROPENE PPM DMS-1	I NC4/I DMS-
1 925	-50	-----	-----	-----	-----	0.0003	0.0019	-----
1 945	-30	0.000	0.004	0.005	0.009	-----	-----	-----
1 958	-17	-----	-----	-----	-----	0.0103	0.0109	0.00
1 1000	-15	0.001	0.196	0.041	0.236	-----	-----	-----
1 1005	-10	-----	-----	-----	-----	-----	-----	-----
1 1015	0	0.001	0.206	0.046	0.251	0.0103	0.0110	0.00
1 1030	15	0.001	0.200	0.054	0.253	0.0104	0.0105	0.00
1 1045	30	0.001	0.193	0.059	0.252	0.0106	0.0101	0.11
1 1100	45	0.001	0.186	0.066	0.251	0.0103	0.0093	0.17
1 1115	60	0.001	0.179	0.071	0.249	0.0102	0.0084	0.25
1 1130	75	0.000	0.171	0.076	0.247	0.0101	0.0078	0.32
1 1145	90	0.001	0.164	0.081	0.244	0.0100	0.0070	0.41
1 1200	105	0.001	0.157	0.086	0.242	0.0097	0.0064	0.49
1 1205	110	-----	-----	-----	-----	-----	-----	-----
1 1215	120	0.000	0.150	0.092	0.242	0.0100	0.0063	0.53

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1
1 925	-50	0.0002	0.0001	1.47	0.006	0.005	0.0006	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

LINE PM	N-C4 PPM DMS-1	PROPENE PPM DMS-1	I NC4/C3= DMS-1	T DEG C ANA-TEMP	PAN PPM FCD-1	HCHO PPM CA	ACETALD PPM 10'C-600
5008	0.0003	0.0019	-----	-----	0.000	-----	0.0005
.009	0.0103	0.0109	0.0074	-----	-----	-----	-----
.236	-----	-----	-----	-----	-----	0.016	-----
.251	0.0103	0.0110	0.0085	-----	-----	-----	-----
.253	0.0104	0.0105	0.0611	26.6	-----	-----	-----
.252	0.0106	0.0101	0.1154	26.4	-----	-----	-----
.251	0.0103	0.0093	0.1705	26.5	-----	-----	-----
.249	0.0102	0.0084	0.2589	26.6	-----	-----	-----
.247	0.0101	0.0078	0.3275	26.8	-----	-----	-----
.244	0.0100	0.0070	0.4143	26.9	-----	-----	-----
.242	0.0097	0.0064	0.4912	27.0	-----	-----	-----
.242	0.0100	0.0063	0.5315	26.9	-----	0.162	-----

LINE PM	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0.006	0.005	0.0006	0.0086	0.0002	0.0044	0.0036

ITC-788
SYNTHETIC FUEL #1 + THIOPHENF + NOX
1984 APR 13

0645: START WET FLUSH.
0818: FLUSH OFF. R.H. ~50% @ 80 F.
77 F DRY BULB
66 F WET BULB
0829: INJECTION: 10.4 MICRO L THIOPHENE
0858: INJECTIONS: 3.4 ML NO
0.64 ML NO2
480 MICRO L SYNTHETIC FUEL #1
1015: 70% LIGHTS
1620: DUMP BAG.
1627: FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	27.5	0.6	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.435	PPM
NO2-IINC	C-1600B	0.046	PPM
THIOPHEN	C-20M	0.3664	PPM
N-C6	DB-5C-1	1.8042	PPM
CYC-C6	DB-5C-1	0.9898	PPM
N-C7	DB-5C-1	2.3347	PPM
MECYC-C6	DB-5C-1	1.6311	PPM
N-C8	DB-5C-1	2.1276	PPM
ETCYC-C6	DB-5C-1	0.2670	PPM
N-C14	SP C-II	0.2144	PPM
TOLUENE	DB-5C-1	1.0040	PPM
P-XYL	DB-5C-1	0.2151	PPM
135-TMB	DB-5C-1	0.2640	PPM
I-C3-BZ	DB-5C-1	0.1801	PPM
NAPHTHAL	SP C-II	0.2520	PPM
TETRALIN	SP C-II	0.3324	PPM
TETRALIN	DB-5C-1	0.3742	PPM
2-MFNAPH	SP C-II	0.2607	PPM
2,3-DMN	SP C-II	0.0953	PPM

ITC-788
SYNTHETIC FUEL #1 + THIOPHENE + NOX
1984 APR 13

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP, GC; FID
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALY7ER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-788
SYNTHETIC FUEL #1 + THIOPHENE + NOX
1984 APR 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-8410	OZONE PPM N-3378	NO PPM C-1600B	NO2-IINC PPM C-1600B	NOX-IINC PPM C-1600B	T DEG C ANA-TEMP	THIOPHENE PPM C-1600B
1 825	-110	-----	-----	-----	-----	-----	-----	0.0
1 841	-94	-----	-----	-----	-----	-----	-----	0.0
1 855	-80	-----	-----	-----	-----	-----	-----	0.0
1 900	-75	0.001	0.000	0.549	0.148	0.695	-----	-----
1 915	-60	0.001	0.358	0.444	0.045	0.488	-----	-----
1 1000	-15	0.000	0.115	0.438	0.047	0.483	-----	-----
1 1015	0	0.001	0.081	0.435	0.046	0.481	-----	0.0
1 1030	15	0.003	0.070	0.406	0.076	0.480	26.7	---
1 1045	30	0.003	0.051	0.368	0.110	0.477	26.5	---
1 1100	45	0.004	0.042	0.323	0.152	0.474	26.6	---
1 1115	60	0.006	0.035	0.270	0.202	0.470	26.7	0.0
1 1130	75	0.009	0.025	0.213	0.253	0.465	26.7	---
1 1145	90	0.019	0.031	0.155	0.305	0.459	26.9	---
1 1200	105	0.037	0.050	0.104	0.347	0.450	26.9	---
1 1215	120	0.076	0.084	0.069	0.373	0.441	27.1	0.0
1 1230	135	0.130	0.143	0.049	0.376	0.424	27.1	---
1 1245	150	0.201	0.214	0.040	0.371	0.409	27.3	---
1 1300	165	0.274	0.294	0.034	0.356	0.390	27.5	---
1 1315	180	0.352	0.380	0.032	0.342	0.372	27.6	0.0
1 1330	195	0.427	0.470	0.030	0.323	0.352	27.7	---
1 1345	210	0.502	0.541	0.029	0.304	0.332	27.8	---
1 1400	225	0.564	0.612	0.028	0.285	0.312	27.8	---
1 1415	240	0.627	0.665	0.027	0.264	0.291	27.8	0.0
1 1430	255	0.666	0.721	0.028	0.247	0.274	27.9	---
1 1445	270	0.694	0.740	0.027	0.233	0.260	28.0	---
1 1500	285	0.710	0.761	0.026	0.222	0.248	28.1	---
1 1515	300	0.718	0.765	0.026	0.215	0.240	28.1	0.0
1 1530	315	0.713	0.772	0.025	0.209	0.234	28.1	---
1 1545	330	0.706	0.769	0.026	0.204	0.230	28.0	---
1 1600	345	0.700	0.759	0.025	0.202	0.227	28.0	---
1 1615	360	0.689	0.744	0.024	0.200	0.225	27.9	0.0

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P-IINC PPM 600R	NOX-IINC PPM C-1600B	T DEG C ANA-TEMP	THIOPHEN PPM C-20M	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	HECYC-C6 PPM DB-5C-1
-----	-----	-----	0.0000	-----	-----	-----	-----
-----	-----	-----	0.3770	-----	-----	-----	-----
-----	-----	-----	0.3742	-----	-----	-----	-----
0.148	0.695	-----	-----	-----	-----	-----	-----
0.045	0.488	-----	-----	1.856	1.022	2.410	1.689
0.047	0.483	-----	-----	-----	-----	-----	-----
0.046	0.481	-----	0.3664	1.804	0.989R	2.335	1.631
0.076	0.480	26.7	-----	-----	-----	-----	-----
0.110	0.477	26.5	-----	-----	-----	-----	-----
0.152	0.474	26.6	-----	-----	-----	-----	-----
0.202	0.470	26.7	0.3620	1.565A	0.8720A	2.009A	1.422A
0.253	0.465	26.7	-----	-----	-----	-----	-----
0.305	0.459	26.9	-----	-----	-----	-----	-----
0.347	0.450	26.9	-----	-----	-----	-----	-----
0.373	0.441	27.1	0.3570	1.522	0.8561	1.980	1.396
0.376	0.424	27.1	-----	-----	-----	-----	-----
0.371	0.409	27.3	-----	-----	-----	-----	-----
0.356	0.390	27.5	-----	-----	-----	-----	-----
0.342	0.372	27.6	0.3419	1.258A	0.7316A	1.647A	1.175A
0.323	0.352	27.7	-----	-----	-----	-----	-----
0.304	0.332	27.8	-----	-----	-----	-----	-----
0.285	0.312	27.8	-----	-----	-----	-----	-----
0.264	0.291	27.8	0.3347	1.053A	0.6241A	1.397A	1.007A
0.247	0.274	27.9	-----	-----	-----	-----	-----
0.233	0.260	28.0	-----	-----	-----	-----	-----
0.222	0.248	28.1	-----	-----	-----	-----	-----
0.215	0.240	28.1	0.3236	1.095A	0.6692A	1.454A	1.039A
0.209	0.234	28.1	-----	-----	-----	-----	-----
0.204	0.230	28.0	-----	-----	-----	-----	-----
0.202	0.227	28.0	-----	-----	-----	-----	-----
0.200	0.225	27.9	0.3175	1.048A	0.6275A	1.412A	1.011A

ITC-788
SYNTHETIC FUEL #1 + THIOPHENE + NOX
1984 APR 13

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C8 PPM DB-5C-1	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DR-5C-1	P-XYL PPM DB-5C-1	135-THR PPM DR-5C-1	I- DB
1 821	-114	-----	-----	0.0000	-----	-----	-----	-
1 915	-60	2.203	2.774	0.2224	1.039	0.2244	0.2800	0
1 939	-36	-----	-----	0.2116	-----	-----	-----	-
1 1015	0	2.128	0.2670	0.2144	1.004	0.2151	0.2640	0
1 1115	60	1.837A	0.2333A	0.2208	0.8897A	0.1888A	0.2280A	0
1 1215	120	1.810	0.2286	0.2070	0.8667	0.1840	0.2106	0
1 1315	180	1.522A	0.1943A	0.1969	0.7517A	0.1586A	0.1668A	0
1 1415	240	1.310A	0.1688A	0.1936	0.6636A	0.1390A	0.1336A	0
1 1515	300	1.353A	0.1732A	0.1748	0.6780A	0.1410A	0.1282A	0
1 1615	360	1.319A	0.1689A	0.1742	0.6629A	0.1387A	0.1203A	0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	2,3-DMN PPM SP C-II	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT M. E
1 821	-114	0.0000	-----	-----	-----	-----	-----	-
1 823	-112	-----	-----	-----	0.0004	0.0001	0.0001	-
1 825	-110	-----	0.0000C	-----	-----	-----	-----	0
1 915	-60	0.0954	-----	-----	-----	-----	-----	-
1 930	-45	-----	-----	0.008	-----	-----	-----	-
1 939	-36	0.0956	-----	-----	-----	-----	-----	-
1 1015	0	0.0953	0.000	-----	-----	-----	-----	0
1 1115	60	0.0868	0.000	0.010	-----	-----	-----	0
1 1215	120	0.0723	0.005	0.014	-----	-----	-----	0
1 1315	180	0.0614	0.015	0.016	-----	-----	-----	0
1 1415	240	0.0475	0.029	0.020	-----	-----	-----	-
1 1515	300	0.0373	0.041	0.022	-----	-----	-----	-
1 1605	350	-----	-----	0.034	-----	-----	-----	-
1 1615	360	0.0329	0.0540	-----	-----	-----	-----	-

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 823	-112	0.0008	-----	0.0020	0.0002	0.0031	-----
1 825	-110	-----	0.0047	-----	-----	-----	0.0029

----- NO DATA TAKEN

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ENE M C-1	P-XYL PPM DB-5C-1	135-TMR PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM SP C-II	TETRALIN PPM DB-5C-1	2-MENAPH PPM SP C-II
039	0.2244	0.2800	0.1878	0.0000 0.2572 0.2624	0.0000 0.3472 0.3503	0.4548	0.0000 0.2843 0.2799
004	0.2151	0.2640	0.1801	0.2520	0.3324	0.3742	0.2607
R97A	0.1888A	0.2280A	0.1590A	0.2368	0.3231	0.3934A	0.2597
667	0.1840	0.2106	0.1123	0.2334	0.3211	0.3712	0.2124
517A	0.1586A	0.1668A	0.1360A	0.2226	0.3094	0.3061A	0.2045
636A	0.1390A	0.1336A	0.1207A	0.2114	0.2665	0.2573A	0.1725
780A	0.1410A	0.1282A	0.1242A	0.2133	0.2610	0.2574A	0.1816
629A	0.1387A	0.1203A	0.1302A	0.1980	0.2368	0.2366A	0.1480

ALD M 600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANF PPM PN-1	ETHANF PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1
0004	0.0001	0.0001	0.0000	1.35	0.005	0.006	0.0004
			0.0000				
			0.0000				
			0.5280				
			0.9120				
			1.296				
			1.424				
			1.5360				

C4= PM B-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
0002	0.0031	0.0029

ITC-788
SYNTHETIC FUEL #1 + THIOPHENE + NOX
1984 APR 13

NOTES

- A FLAME EXTINGUISHED AT FIRST PART OF CHROMATOGRAM AND RELIT.
- B STOPPED CHROMATOGRAM TOO SOON.
- C ROOM TEMP. INCREASED TO 29 C DURING THIS RUN--CHANGED R.T.'S ON ECD-1.
- D SAMPLE DILUTED 50% WITH NITROGEN.

ITC-789
NOX-AIR IRRADIATION
1984 APRIL 16

0645: BEGIN FLUSH.
0820: STOP FLUSH. R.H. ~47% @ 80 F.
65 F WET BULB
77 F DRY BULB
0857: INJECTIONS: 3.4 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

1015: 70% LIGHTS
1117: DUMP BAG.
1430: START FLUSH.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.7	0.1	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.438	PPM
NO	T 14B-1	0.378	PPM
NO2-UNC	C-1600B	0.113	PPM
NO2-UNC	T 14B-1	0.109	PPM
N-C4	DMS-1	0.0105	PPM
PROPENE	DMS-1	0.0110	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-789
NOX-AIR IRRADIATION
1984 APRIL 16

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM N-3378	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-IINC PPM C-1600B	NOX-I PPM T 14B-1
1 825	-50	-----	-----	-----	-----	-----	-----	-----
1 845	-30	0.000	0.005	0.002	0.004	0.000	0.009	0.000
1 857	-18	-----	-----	-----	-----	-----	-----	-----
1 900	-15	0.001	0.446	0.378	0.113	0.107	0.557	0.000
1 915	0	0.000	0.438	0.378	0.113	0.109	0.549	0.000
1 930	15	0.000	0.429	0.376	0.117	0.116	0.544	0.000
1 945	30	0.000	0.421	0.378	0.119	0.115	0.539	0.000
1 1000	45	0.001	0.414	0.376	0.121	0.118	0.535	0.000
1 1015	60	0.000	0.406	0.374	0.123	0.119	0.527	0.000
1 1030	75	0.000	0.400	0.371	0.125	0.124	0.523	0.000
1 1045	90	0.000	0.393	0.369	0.128	0.126	0.520	0.000
1 1100	105	0.000	0.389	0.366	0.128	0.127	0.516	0.000
1 1115	120	0.000	0.383	0.363	0.131	0.129	0.513	0.000

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHAN PPM PN-1
1 825	-50	0.000	-----	0.0008	0.0003	0.0001	1.46	0.000
1 905	-10	-----	0.010	-----	-----	-----	-----	-----
1 1105	110	-----	0.010	-----	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 825	-50	0.0047	0.0047

----- NO DATA TAKEN

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NC	NO2-UNC PPM T 14B-1	NOX-IINC PPM C-1600B	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP
04	0.000	0.009	0.001	0.0003	0.0020		
13	0.107	0.557	0.482	0.0103	0.0106	0.0373	
13	0.109	0.549	0.485	0.0105	0.0110	0.0266	
17	0.116	0.544	0.488	0.0106	0.0104	0.0855	25.5
19	0.115	0.539	0.489	0.0104	0.0099	0.1255	25.7
21	0.118	0.535	0.490	0.0104	0.0094	0.1725	25.7
23	0.119	0.527	0.490	0.0104	0.0090	0.2166	25.8
25	0.124	0.523	0.492	0.0103	0.0085	0.2688	25.8
28	0.126	0.520	0.490	0.0101	0.0078	0.3211	25.8
28	0.127	0.516	0.489	0.0101	0.0075	0.3610	25.9
31	0.129	0.513	0.490	0.0099	0.0069	0.4215	25.6

INE	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1
003	0.0001	1.46	0.006	0.006	0.0007	0.0038	0.0003

ITC-791
PROPENE - NOX
1984 APRIL 17

0645: BEGIN FLUSH.
0812: STOP FLUSH. R.H. ~50% @ 80 F.
66 F WET BULB
78 F DRY BULB
0835: INJECTIONS: 6.4 ML PROPENE
3.4 ML NO
0.64 ML NO2
0915: 70% LIGHTS
1618: DUMP BAG.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 102 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.1	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.421	PPM
NO2-UNC	C-1600B	0.109	PPM
PROPENE	DMS-1	0.951	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121; POROPAK-N GC; FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER; SN11506A

ITC-791
PROPENE - NOX
1984 APRIL 17

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM C-1600B	NO2-UNC PPM C-1600B	NOX-UNC PPM C-1600B	T DEG C ANA-TEMP	PROPENE PPM DMS-1	PAN PPM ECD-
1 815	-60	-----	-----	-----	-----	-----	0.002	0.0
1 830	-45	0.006	0.002	0.002	0.004	-----	0.946	-----
1 845	-30	-----	-----	-----	-----	-----	0.955	-----
1 855	-20	-----	-----	-----	-----	-----	-----	-----
1 900	-15	0.006	0.423	0.108	0.530	-----	-----	-----
1 915	0	0.031	0.421	0.109	0.529	-----	0.951	0.0
1 930	15	0.000	0.354	0.172	0.525	25.4	-----	-----
1 945	30	0.002	0.281	0.241	0.521	25.2	-----	-----
1 1000	45	0.010	0.212	0.301	0.512	25.6	-----	-----
1 1015	60	0.022	0.148	0.356	0.503	25.5	0.781	0.0
1 1030	75	0.031	0.094	0.399	0.493	25.7	-----	-----
1 1045	90	0.055	0.054	0.429	0.481	25.9	-----	-----
1 1100	105	0.112	0.029	0.440	0.467	25.7	-----	-----
1 1115	120	0.182	0.014	0.436	0.450	26.0	0.542	0.0
1 1130	135	0.246	0.009	0.424	0.431	26.0	-----	-----
1 1145	150	0.316	0.006	0.408	0.412	25.9	-----	-----
1 1200	165	0.387	0.004	0.393	0.395	26.1	-----	-----
1 1215	180	0.453	0.002	0.376	0.378	26.2	0.250	-----
1 1230	195	0.501	0.001	0.363	0.363	26.1	-----	-----
1 1245	210	0.543	0.001	0.351	0.351	26.1	-----	-----
1 1300	225	0.576	0.001	0.339	0.339	26.1	-----	-----
1 1315	240	0.618	0.001	0.329	0.330	26.2	0.094	0.1
1 1330	255	0.643	0.000	0.322	0.322	26.4	-----	-----
1 1345	270	0.670	0.001	0.315	0.315	26.4	-----	-----
1 1400	285	0.690	0.001	0.311	0.310	26.3	-----	-----
1 1415	300	0.711	0.001	0.305	0.305	26.3	0.032	0.2
1 1430	315	0.722	0.000	0.301	0.300	26.3	-----	-----
1 1445	330	0.733	0.000	0.298	0.297	26.3	-----	-----
1 1500	345	0.748	0.000	0.294	0.294	26.4	-----	-----
1 1505	350	-----	-----	-----	-----	-----	-----	-----
1 1515	360	0.752	0.000	0.291	0.291	26.5	0.011	0.2
1 1530	375	0.755	0.000	0.289	0.289	26.6	-----	-----
1 1545	390	0.768	0.000	0.288	0.287	26.5	-----	-----
1 1600	405	0.771	0.000	0.286	0.285	26.5	-----	-----
1 1615	420	0.771	0.000	0.286	0.285	26.5	-----	-----

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UNC M .008	T DEG C ANA-TEMP	PROPENE PPM DMS-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600
---	---	0.002	0.000	---	0.0006	0.0003	0.0000
004	---	---	---	---	---	---	---
---	---	0.946	---	---	---	---	---
---	---	0.955	---	---	---	---	---
.530	---	---	---	0.010	---	---	---
.529	---	0.951	0.000	---	0.0007	0.0001	0.0000
.525	25.4	---	---	---	---	---	---
.521	25.2	---	---	---	---	---	---
.512	25.6	---	---	---	---	---	---
.503	25.5	0.781	0.002	0.030	0.0652	0.0011	---
.493	25.7	---	---	---	---	---	---
.481	25.9	---	---	---	---	---	---
.467	25.7	---	---	---	---	---	---
.450	26.0	0.542	0.019	0.103	0.1278	0.0022	---
.431	26.0	---	---	---	---	---	---
.412	25.9	---	---	---	---	---	---
.395	26.1	---	---	---	---	---	---
.378	26.2	0.250	-----A	0.085	0.1837	0.0020	---
.363	26.1	---	---	---	---	---	---
.351	26.1	---	---	---	---	---	---
.339	26.1	---	---	---	---	---	---
.330	26.2	0.094	0.155	---	0.2183	0.0022	0.0027
.322	26.4	---	---	---	---	---	---
.315	26.4	---	---	---	---	---	---
.310	26.3	---	---	---	---	---	---
.305	26.3	0.032	0.205	0.144	-----B	0.0022	0.0043
.300	26.3	---	---	---	---	---	---
.297	26.3	---	---	---	---	---	---
.294	26.4	---	---	0.154	---	---	---
.291	26.5	0.011	0.225	---	0.1475	0.0020	0.0043
.289	26.6	---	---	---	---	---	---
.287	26.5	---	---	---	---	---	---
.285	26.5	---	---	---	---	---	---
.285	26.5	---	---	---	---	---	---

ITC-791
PROPENE - NOX
1984 APRIL 17

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I- P DM
1 815	-60	1.36	0.006	0.005	0.0002	0.0006	0.0028	0.
1 1415	300	-----	-----	0.024	-----	-----	-----	---
1 1515	360	-----	-----	-----C	0.0002	0.0006	-----	0.

----- NO DATA TAKEN

NOTES

- A OFFSCALE ON X16--NEED TO DILUTE. PAN > 50 PPB AT 1215.
- B WRONG ATTENUATION. OFFSCALE.
- C OFFSCALE ON X16.

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C4 PM S-1	I-C4 PPM DMS-1	ETHENE PPM FN-1	I-C4= PPM DMS-1	T2-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
0002	0.0006	0.0028	0.0002	0.0000	0.0016	0.0016
-----	-----	-----	-----	-----	-----	-----
0002	0.0006	-----	0.0002	0.0000	-----	0.0015

PFB AT 1215.

ITC-792
PROPENE - NOX
1984 APRIL 19

NEW BAG #103 INSTALLED
0645: START FLUSH.
0820: STOP FLUSH. R.H. ~50% @ 80 F.
65 F WET BULB
75 F DRY BULB
0854: INJECTIONS: 6.4 ML PROPENE
3.4 ML NO
0.64 ML NO2
0915: 70% LIGHTS.
1530: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 915 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.0	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.339	PPM
NO2-UNC	T 14B-1	0.126	PPM
PROPENE	DMS-1	0.977	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
4000	ECD-3	CHAMP; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-792
PROPENE - NOX
1984 APRIL 19

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PROPENE PPM DMS-1	I I EI
1 829	-46	-----	-----	-----	-----	-----	0.002	--
1 830	-45	0.005	0.005	0.011	0.015	-----	-----	--
1 845	-30	0.006	0.005	0.010	0.013	-----	-----	--
1 857	-18	-----	-----	-----	-----	-----	0.944	--
1 900	-15	0.012	0.337	0.126	0.460	-----	-----	--
1 910	-5	-----	-----	-----	-----	-----	-----	--
1 915	0	0.012	0.339	0.126	0.462	-----	0.977	--
1 930	15	0.012	0.280	0.183	0.459	23.6	-----	--
1 945	30	0.011	0.224	0.236	0.457	23.2	-----	--
1 1000	45	0.019	0.174	0.282	0.454	23.0	-----	--
1 1015	60	0.019	0.128	0.321	0.446	23.9	0.788	--
1 1026	71	-----	-----	-----	-----	-----	-----	--
1 1030	75	0.034	0.088	0.354	0.438	23.9	-----	--
1 1045	90	0.056	0.058	0.376	0.430	24.1	-----	--
1 1100	105	0.103	0.037	0.388	0.422	24.2	-----	--
1 1115	120	0.170	0.024	0.390	0.411	24.2	0.562	--
1 1130	135	0.243	0.018	0.380	0.394	24.2	-----	--
1 1145	150	0.312	0.015	0.369	0.381	24.2	-----	--
1 1200	165	0.374	0.012	0.356	0.366	24.2	-----	--
1 1215	180	0.439	0.010	0.344	0.351	24.2	0.261	--
1 1230	195	0.493	0.010	0.335	0.342	24.1	-----	--
1 1245	210	0.533	0.009	0.323	0.331	24.1	-----	--
1 1300	225	0.570	0.009	0.316	0.323	24.1	-----	--
1 1315	240	0.601	0.009	0.308	0.314	24.1	0.099	--
1 1330	255	0.631	0.009	0.303	0.309	24.1	-----	--
1 1345	270	0.658	0.008	0.297	0.303	24.2	-----	--
1 1400	285	0.681	0.008	0.293	0.297	24.1	-----	--
1 1415	300	0.693	0.008	0.287	0.293	23.9	-----	--
1 1430	315	0.709	0.007	0.283	0.289	24.1	-----	--
1 1445	330	0.723	0.008	0.279	0.285	23.9	-----	--
1 1500	345	0.739	0.008	0.277	0.283	23.9	-----	--
1 1505	350	-----	-----	-----	-----	-----	-----	--
1 1515	360	0.750	0.007	0.273	0.280	23.9	0.012	--
1 1530	375	0.751	0.008	0.273	0.278	23.8	-----	--

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HEX PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ET P
1 829	-46	0.0001	1.17	0.003	0.005	0.0002	0.0006	0
1 915	0	0.0001	-----	-----	-----	-----	-----	-

----- NO DATA TAKEN

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PAGE 2

UNC M B-1	T DEG C ANA-TEMP	PROPENE PPM DMS-1	PAN PPM ECD-3	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
---	-----	0.002	-----	0.000A	-----	0.0007	0.0005
015	-----	-----	-----	-----	-----	-----	-----
013	-----	-----	-----	-----	-----	-----	-----
---	-----	0.944	-----	-----	-----	-----	-----
460	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	0.004	-----	-----
462	-----	0.977	-----	0.000	-----	0.0010	0.0001
459	23.6	-----	-----	-----	-----	-----	-----
457	23.2	-----	-----	-----	-----	-----	-----
454	23.0	-----	-----	-----	-----	-----	-----
446	23.9	0.788	-----	0.000	0.002	-----	-----
---	-----	-----	-----	-----	-----	0.1342	-----
438	23.9	-----	-----	-----	-----	-----	-----
430	24.1	-----	-----	-----	-----	-----	-----
422	24.2	-----	-----	-----	-----	-----	-----
411	24.2	0.562	-----	0.003	0.105	0.1898	-----
394	24.2	-----	-----	-----	-----	-----	-----
381	24.2	-----	-----	-----	-----	-----	-----
366	24.2	-----	-----	-----	-----	-----	-----
351	24.2	0.261	-----	0.010	0.026	0.2678	-----
342	24.1	-----	-----	-----	-----	-----	-----
331	24.1	-----	-----	-----	-----	-----	-----
323	24.1	-----	-----	-----	-----	-----	-----
314	24.1	0.099	0.360	0.017	-----	0.2929	-----
309	24.1	-----	-----	-----	-----	-----	-----
303	24.2	-----	-----	-----	-----	-----	-----
297	24.1	-----	-----	-----	-----	-----	-----
293	23.9	-----	-----	-----	0.105	-----	-----
289	24.1	-----	-----	-----	-----	-----	-----
285	23.9	-----	-----	-----	-----	-----	-----
283	23.9	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	0.063	-----	-----
280	23.9	0.012	-----	0.021	-----	0.2173	-----
278	23.8	-----	-----	-----	-----	-----	-----
PANE PM B-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1	
005	0.0002	0.0006	0.0016	0.0002	0.0020	0.0017	
---	-----	-----	-----	-----	-----	-----	

ITC-792
PROPENE - NOX
1984 APRIL 19

NOTES

A STANDING CURRENT IS 45% AT X64 AT 100% CELL VOLTAGE.

ITC-793
NOX-AIR IRRADIATION
1984 APRIL 20

0645: START FLUSH.
0818: STOP FLUSH. R.H. ~47% @ 80 F.
64 F WET BULB
75 F DRY BULB
0845: INJECTIONS: 3.4 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0900: 70% LIGHTS
1100: RUN OVER.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.1	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.357	PPM
NO2-UNC	T 14B-1	0.123	PPM
N-C4	DMS-1	0.0107	PPM
PROPENE	DMS-1	0.0113	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-793
NOX-AIR IRRADIATION
1984 APRIL 20

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14R-1	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/
1 820	-40	-----	-----	-----	-----	0.0002	0.0017	-----
1 845	-15	0.011	0.004	0.017	0.021	-----	-----	-----
1 848	-12	-----	-----	-----	-----	0.0083	0.0106	-0.11
1 855	-5	-----	-----	-----	-----	-----	-----	-----
1 900	0	0.006	0.357	0.123	0.479	0.0107	0.0113	0.0
1 915	15	0.012	0.361	0.125	0.484	0.0107	0.0108	0.0
1 930	30	0.006	0.362	0.123	0.483	0.0108	0.0106	0.0
1 945	45	0.011	0.364	0.122	0.483	0.0104	0.0100	0.1
1 1000	60	0.006	0.361	0.120	0.479	0.0109	0.0103	0.1
1 1015	75	0.006	0.361	0.120	0.479	0.0106	0.0097	0.1
1 1030	90	0.011	0.362	0.119	0.478	0.0107	0.0096	0.1
1 1045	105	0.006	0.363	0.119	0.480	0.0104	0.0092	0.1
1 1050	110	-----	-----	-----	-----	-----	-----	-----
1 1100	120	0.008	0.362	0.119	0.478	0.0098	0.0079	0.2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4 PPM DMS
1 820	-40	0.0004	1.17	0.003	0.005	0.0006	0.0019	0.0

----- NO DATA TAKEN

NOTES

A STANDING CURRENT IS 39% AT ATTENUATION OF 64 (100% CELL VOLTAGE).

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UNC M IB-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600
----	0.0002	0.0017	-----	-----	0.000A	-----	0.0006
.021	-----	-----	-----	-----	-----	-----	-----
----	0.0083	0.0106	-0.1816	-----	-----	-----	-----
----	-----	-----	-----	-----	-----	0.002	-----
.479	0.0107	0.0113	0.0142	-----	-----	-----	-----
.484	0.0107	0.0108	0.0532	24.9	-----	-----	-----
.483	0.0108	0.0106	0.0884	24.2	-----	-----	-----
.483	0.0104	0.0100	0.1056	23.9	-----	-----	-----
.479	0.0109	0.0103	0.1312	24.0	-----	-----	-----
.479	0.0106	0.0097	0.1547	24.0	-----	-----	-----
.478	0.0107	0.0096	0.1751	24.1	-----	-----	-----
.480	0.0104	0.0092	0.1896	24.1	-----	-----	-----
----	-----	-----	-----	-----	-----	0.010	-----
.478	0.0098	0.0079	0.2842	24.0	-----	-----	-----

PANE PM S-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4=	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
.005	0.0006	0.0019	0.0001	0.0022	0.0020

64 (100% CELL VOLTAGE).

ITC-795
SYNTHETIC FUEL #2 - NOX
1984 APRIL 23

0645: BEGIN WET FLUSH.
0820: STOP FLUSH. R.H. ~52% @ 80 F.
66 F WET BULB
75 F DRY BULB
0856: INJECTIONS: 3.6 ML NO
0.62 ML NO2
240 MICRO L SYNTHETIC FUEL #2 'HIGH AROMATICS'
1015: 70% LIGHTS
1617: DUMP BAG.
1630: START FLUSH: 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.5	0.9	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.393	PPM
NO2-UNC	T 14B-1	0.108	PPM
N-C6	DB-5C-1	0.7430	PPM
CYC-C6	DB-5C-1	0.4235	PPM
N-C7	DB-5C-1	0.9796	PPM
MECYC-C6	DB-5C-1	0.6931	PPM
N-C8	DB-5C-1	0.8989	PPM
ETCYC-C6	DB-5C-1	0.1161	PPM
N-C14	SP C-II	0.0897	PPM
TOLUENE	DB-5C-1	0.7682	PPM
P-XYL	DB-5C-1	0.1712	PPM
135-TMB	DB-5C-1	0.2054	PPM
TETRALIN	DB-5C-1	0.2372	PPM
TETRALIN	SP C-II	0.2482	PPM
2-MENAPH	SP C-II	0.1882	PPM

ITC-795
SYNTHETIC FUEL #2 - NOX
1984 APRIL 23

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2702	SP C-II	RM-1031 SUPERPAK-II1 FID(TENAX)
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP, GC1 FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM MO3-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C PPM DB-51
1 845	-90	0.010	0.001	0.004	0.017	0.022	-----	---
1 910	-65	-----	-----	-----	-----	-----	-----	0.7
1 1000	-15	0.051	0.000	0.397	0.105	0.500	-----	---
1 1015	0	0.039	0.001	0.393	0.108	0.499	-----	0.7
1 1030	15	0.031	0.001	0.371	0.132	0.501	24.7	---
1 1045	30	0.025	0.001	0.345	0.154	0.496	24.1	---
1 1100	45	0.023	0.001	0.312	0.186	0.496	23.8	---
1 1115	60	0.020	0.002	0.278	0.218	0.493	23.8	0.6
1 1130	75	0.022	0.004	0.237	0.259	0.493	25.0	---
1 1145	90	0.031	0.008	0.191	0.299	0.488	24.9	---
1 1200	105	0.041	0.015	0.144	0.340	0.481	25.0	---
1 1215	120	0.059	0.029	0.103	0.382	0.483	25.0	0.6
1 1230	135	0.081	0.054	0.070	0.404	0.472	25.0	---
1 1245	150	0.118	0.087	0.048	0.416	0.462	25.2	---
1 1300	165	0.173	0.136	0.036	0.414	0.447	25.2	---
1 1315	180	0.231	0.188	0.028	0.408	0.433	25.5	0.6
1 1330	195	0.281	0.246	0.023	0.401	0.421	25.6	---
1 1345	210	0.344	0.307	0.019	0.391	0.408	25.7	---
1 1400	225	0.396	0.371	0.018	0.376	0.391	25.9	---
1 1415	240	0.464	0.422	0.016	0.362	0.376	26.1	0.5
1 1430	255	0.531	0.499	0.016	0.347	0.361	26.2	---
1 1445	270	0.581	0.558	0.015	0.327	0.340	26.2	---
1 1500	285	0.638	0.610	0.015	0.311	0.324	26.4	---
1 1515	300	0.680	0.638	0.014	0.297	0.309	26.6	0.6
1 1530	315	0.712	0.697	0.014	0.283	0.295	26.4	---
1 1545	330	0.741	0.725	0.014	0.269	0.281	26.5	---
1 1600	345	0.751	0.743	0.014	0.258	0.271	26.5	---

----- NO DATA TAKEN

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PAGE 2

ID

D

IL.)

-UNC PM 4B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1
.017	0.022	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.7354A	0.4187A	0.9699A	0.6856A	0.8892A
.105	0.500	-----	-----	-----	-----	-----	-----
.108	0.499	-----	0.7430	0.4235	0.9796	0.6931	0.8989
.132	0.501	24.7	-----	-----	-----	-----	-----
.154	0.496	24.1	-----	-----	-----	-----	-----
.186	0.496	23.8	-----	-----	-----	-----	-----
.218	0.493	23.8	0.6189	0.3668	0.8221	0.5904	0.7585
.259	0.493	25.0	-----	-----	-----	-----	-----
.299	0.488	24.9	-----	-----	-----	-----	-----
.340	0.481	25.0	-----	-----	-----	-----	-----
.382	0.483	25.0	0.6838	0.3971	0.9031	0.6391	0.8294
.404	0.472	25.0	-----	-----	-----	-----	-----
.416	0.462	25.2	-----	-----	-----	-----	-----
.414	0.447	25.2	-----	-----	-----	-----	-----
.408	0.433	25.5	0.6890	0.3902	0.9013	0.6307	0.8214
.401	0.421	25.6	-----	-----	-----	-----	-----
.391	0.408	25.7	-----	-----	-----	-----	-----
.376	0.391	25.9	-----	-----	-----	-----	-----
.362	0.376	26.1	0.5653	0.3327	0.7445	0.5274	0.6842
.347	0.361	26.2	-----	-----	-----	-----	-----
.327	0.340	26.2	-----	-----	-----	-----	-----
.311	0.324	26.4	-----	-----	-----	-----	-----
.297	0.309	26.6	0.6389	0.3625	0.8319	0.5757	0.7542
.283	0.295	26.4	-----	-----	-----	-----	-----
.269	0.281	26.5	-----	-----	-----	-----	-----
.258	0.271	26.5	-----	-----	-----	-----	-----

ITC-795
SYNTHETIC FUEL #2 - NOX
1984 APRIL 23

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C PPM DB-51
1 1615	360	0.761	0.744	0.013	0.248	0.259	26.6	0.6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTH PPM SP C
1 830	-105	-----	0.0000	-----	-----	-----	-----	0.0
1 910	-65	0.1146A	0.0965	0.7539A	0.1687A	0.2008A	0.1317A	0.1
1 933	-42	-----	0.0951	-----	-----	-----	-----	0.1
1 1015	0	0.1161	0.0897	0.7682	0.1712	0.2054	0.1332	0.1
1 1115	60	0.0996	0.0894	0.6644	0.1473	0.1670	0.1152	0.1
1 1215	120	0.1066	0.0973	0.7174	0.1576	0.1686	0.1248	0.1
1 1315	180	0.1048	0.0861	0.7058	0.1533	0.1505	0.1230	0.1
1 1415	240	0.0881	0.0770	0.6061	0.1302	0.1124	0.1061	0.1
1 1515	300	0.0945	0.0754	0.6572	0.1373	0.1060	0.1152	0.1
1 1615	360	0.0900	0.0701	0.6457	0.1318	0.0909	0.1108	0.1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METH PP PN-
1 826	-109	0.000	-----	0.0007	0.0004	0.0001	0.0000	1
1 920	-55	-----	0.012	-----	-----	-----	-----	---
1 1015	0	0.000	-----	-----	-----	-----	0.0000	---
1 1115	60	0.000	0.002	-----	-----	-----	0.0000	---
1 1215	120	0.002	0.006	-----	-----	-----	0.2880	---
1 1315	180	0.008	0.006	-----	-----	-----	0.4320	---
1 1415	240	0.016	0.014	-----	-----	-----	0.5920	---
1 1515	300	0.026	0.026	-----	-----	-----	0.6880	---
1 1605	350	-----	0.022	-----	-----	-----	-----	---
1 1615	360	0.033	-----	-----	-----	-----	0.6880	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 826	-109	0.0022	0.0019	0.0002	0.0017	0.0016

----- NO DATA TAKEN

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PAGE 3

2-UNC PPM 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1
0.248	0.259	26.6	0.6121	0.3502	0.7927	0.5505	0.7436

-XYL PPM -5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM DB-5C-1	TETRALIN PPM SP C-II	2-MENAPH PPM SP C-II	2,3-DMN PPM SP C-II
0.1687A	0.2008A	0.1317A	0.0000 0.1940 0.1921	0.2293A	0.0000 0.2568 0.2454	0.0000 0.1927 0.1892	0.0000 0.0712 0.0747

0.1712	0.2054	0.1332	0.1890	0.2372	0.2482	0.1882	0.0695
0.1473	0.1670	0.1152	0.1877	0.1957	0.2765	0.1895	0.0616
0.1576	0.1686	0.1248	0.1786	0.2118	0.2223	0.1588	0.0513
0.1533	0.1505	0.1230	0.1607	0.1965	0.2049	0.1475	0.0399
0.1302	0.1124	0.1061	0.1577	0.1574	0.1908	0.1227	0.0304
0.1373	0.1060	0.1152	0.1490	0.1590	0.1713	0.1032	0.0224
0.1318	0.0909	0.1108	0.1388	0.1391	0.1612	0.0808	0.0158

ETONE PPM C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1
0.0004	0.0001	0.0000	1.30	0.004	0.006	0.0003	0.0008
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.0000	-----	-----	-----	-----	-----
-----	-----	0.0000	-----	-----	-----	-----	-----
-----	-----	0.2880	-----	-----	-----	-----	-----
-----	-----	0.4320	-----	-----	-----	-----	-----
-----	-----	0.5920	-----	-----	-----	-----	-----
-----	-----	0.6880	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.6880	-----	-----	-----	-----	-----

TYLEN PPM MS-1	ACETYLEN PPM PN-1
0.0017	0.0016

2

ITC-795
SYNTHETIC FUEL #2 - NOX
1984 APRIL 23

NOTES

- A FROM 910 TO 1615, FLAME EXTINGUISHED AND RELIT DURING EARLY SECTION OF CHROMATOGRAM.

ITC-796
SYNTHETIC FUEL #2 - NOX
1984 APRIL 24

0645: BEGIN FLUSH.
0812: STOP FILL. R.H. 50% @ 80 F.
78 F DRY BULB
66 F WET BULB
0853: INJECTIONS: 3.6 ML NO
0.64 ML NO2
480 MICRO L SYNTHETIC FUEL #2 "HIGH AROMATICS"
1000: 70% LIGHTS
1630: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1000 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.2	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.435	PPM
NO	T 14B-1	0.409	PPM
NO2-UNC	C-1600B	0.107	PPM
NO2-UNC	T 14B-1	0.123	PPM
N-C6	DB-5C-1	1.5695	PPM
CYC-C6	DB-5C-1	0.8905	PPM
N-C7	DB-5C-1	2.0988	PPM
MECYC-C6	DB-5C-1	1.4671	PPM
N-C8	DB-5C-1	1.9108	PPM
ETCYC-C6	DB-5C-1	0.2454	PPM
N-C14	SP C-II	0.2095	PPM
TOLUENE	DB-5C-1	1.6217	PPM
P-XYL	DB-5C-1	0.3627	PPM
135-TMB	DB-5C-1	0.4338	PPM
TETRALIN	DB-5C-1	0.6921	PPM
TETRALIN	SP C-II	0.5339	PPM
2-MENAPH	SP C-II	0.3888	PPM

ITC-796
SYNTHETIC FUEL #2 - NOX
1984 APRIL 24

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP; GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-796
SYNTHETIC FUEL #2 - NOX
1984 APRIL 24

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-8410	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX P T 1
1 845	-75	0.001	0.000	0.006	0.004	0.018	0.004	0
1 905	-55	-----	-----	-----	-----	-----	-----	---
1 945	-15	0.001	0.436	0.410	0.110	0.125	0.546	0
1 1000	0	0.001	0.435	0.409	0.107	0.123	0.541	0
1 1015	15	0.002	0.389	0.371	0.151	0.163	0.539	0
1 1030	30	0.002	0.339	0.324	0.194	0.206	0.531	0
1 1045	45	0.004	0.279	0.271	0.249	0.254	0.527	0
1 1100	60	0.008	0.214	0.212	0.305	0.308	0.518	0
1 1115	75	0.018	0.147	0.149	0.363	0.367	0.509	0
1 1130	90	0.041	0.094	0.092	0.408	0.413	0.500	0
1 1145	105	0.083	0.058	0.055	0.424	0.437	0.481	0
1 1200	120	0.143	0.041	0.036	0.420	0.437	0.459	0
1 1215	135	0.213	0.031	0.026	0.406	0.427	0.436	0
1 1230	150	0.288	0.027	0.020	0.388	0.410	0.413	0
1 1245	165	0.366	0.025	0.017	0.361	0.389	0.384	0
1 1300	180	0.431	0.023	0.015	0.340	0.366	0.362	0
1 1315	195	0.490	0.023	0.013	0.312	0.343	0.334	0
1 1330	210	0.544	0.021	0.012	0.288	0.321	0.309	0
1 1345	225	0.585	0.021	0.012	0.264	0.298	0.285	0
1 1400	240	0.596	0.021	0.012	0.248	0.279	0.268	0
1 1415	255	0.597	0.021	0.012	0.232	0.265	0.252	0
1 1430	270	0.587	0.021	0.012	0.220	0.256	0.240	0
1 1445	285	0.568	0.019	0.011	0.212	0.249	0.232	0
1 1500	300	0.553	0.019	0.011	0.209	0.241	0.228	0
1 1515	315	0.535	0.020	0.011	0.203	0.242	0.222	0
1 1530	330	0.521	0.020	0.011	0.202	0.242	0.221	0
1 1545	345	0.510	0.019	0.011	0.198	0.243	0.218	0
1 1600	360	0.499	0.019	0.011	0.198	0.244	0.217	0
1 1615	375	0.474	0.021	0.011	0.197	0.248	0.218	0

UNC M	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1
004	0.018	0.004	0.023	-----	-----	-----	-----
---	-----	-----	-----	-----	1.330	0.7937	1.797
110	0.125	0.546	0.531	-----	-----	-----	-----
107	0.123	0.541	0.528	-----	1.569A	0.8905A	2.099A
151	0.163	0.539	0.529	25.8	-----	-----	-----
194	0.206	0.531	0.527	25.3	-----	-----	-----
249	0.254	0.527	0.523	25.2	-----	-----	-----
305	0.308	0.518	0.516	25.3	1.581A	0.8885A	2.073A
363	0.367	0.509	0.512	25.3	-----	-----	-----
408	0.413	0.500	0.502	25.3	-----	-----	-----
424	0.437	0.481	0.487	25.2	-----	-----	-----
420	0.437	0.459	0.469	25.1	1.518A	0.8578A	2.006A
406	0.427	0.436	0.450	25.5	-----	-----	-----
388	0.410	0.413	0.427	25.6	-----	-----	-----
361	0.389	0.384	0.403	25.7	-----	-----	-----
340	0.366	0.362	0.378	25.7	1.535	0.8619	2.018
312	0.343	0.334	0.354	25.8	-----	-----	-----
288	0.321	0.309	0.331	25.9	-----	-----	-----
264	0.298	0.285	0.308	25.6	-----	-----	-----
248	0.279	0.268	0.289	25.2	1.503	0.8391	1.967
232	0.265	0.252	0.274	24.9	-----	-----	-----
220	0.256	0.240	0.265	24.9	-----	-----	-----
212	0.249	0.232	0.257	24.9	-----	-----	-----
209	0.241	0.228	0.251	24.9	1.538	0.8560	2.033
203	0.242	0.222	0.251	24.8	-----	-----	-----
202	0.242	0.221	0.252	24.8	-----	-----	-----
198	0.243	0.218	0.252	24.9	-----	-----	-----
198	0.244	0.217	0.253	24.9	1.307A	0.7576A	1.733A
197	0.248	0.218	0.257	24.0	-----	-----	-----

ITC-796
SYNTHETIC FUEL #2 - NOX
1984 APRIL 24

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135 P DB-
1 830	-90	-----	-----	-----	0.0003	-----	-----	--
1 905	-55	1.292	1.669	0.2179	-----	1.442	0.3240	0.
1 908	-52	-----	-----	-----	0.2137	-----	-----	--
1 935	-25	-----	-----	-----	0.2142	-----	-----	--
1 1000	0	1.467A	1.911A	0.2454A	0.2095	1.622A	0.3627A	0.
1 1100	60	1.454A	1.898A	0.2428A	0.1844	1.612A	0.3596A	0.
1 1200	120	1.404A	1.836A	0.2335A	0.1819	1.561A	0.3450A	0.
1 1300	180	1.406	1.841	0.2328	0.1683	1.570	0.3424	0.
1 1400	240	1.363	1.790	0.2251	0.1691	1.520	0.3305	0.
1 1500	300	1.386	1.819	0.2280	0.1704	1.558	0.3344	0.
1 1600	360	1.217A	1.585A	0.2011A	-----B	1.383A	0.2960A	0.
1 1617	377	-----	-----	-----	0.1545C	-----	-----	--

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	2-MENAPH PPM SP C-II	2,3-DMN PPM SP C-II	PAN PPM ECD-1	HCHD PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	RT= H.V EC
1 826	-94	-----	-----	0.000	-----	0.0001	0.0002	0
1 830	-90	0.0000	0.0000	-----	-----	-----	-----	--
1 908	-52	0.4155	0.1413	-----	-----	-----	-----	--
1 910	-50	-----	-----	-----	0.004	-----	-----	--
1 935	-25	0.4228	0.1460	-----	-----	-----	-----	--
1 1000	0	0.3888	0.1273	0.000	-----	-----	-----	0
1 1100	60	0.3794	0.1221	0.001	0.000	-----	-----	0
1 1200	120	0.3291	0.1050	0.006	0.004	-----	-----	0
1 1300	180	0.3025	0.0823	0.020	0.018	-----	-----	0
1 1400	240	0.2552	0.0645	0.030	0.012	-----	-----	0
1 1500	300	0.2499	0.0545	0.038	0.016	-----	-----	0
1 1550	350	-----	-----	-----	0.022	-----	-----	--
1 1600	360	-----B	-----B	0.040	-----	-----	-----	0
1 1617	377	-----D	0.0492C	-----	-----	-----	-----	--

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 826	-94	0.0007	0.0161	0.0017	0.0002	0.0031	0.0029

----- NO DATA TAKEN

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PAGE 4

-C14 PPM C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM DB-5C-1	TETRALIN PPM SP C-II
.0003	-----	-----	-----	-----	0.0000	-----	0.0000
-----	1.442	0.3240	0.3802	0.2501	-----	0.5937	-----
.2137	-----	-----	-----	-----	0.3907	-----	0.5339
.2142	-----	-----	-----	-----	0.4077	-----	0.5477
.2095	1.622A	0.3627A	0.4338A	0.2775A	0.4018	0.6921A	0.5339
.1844	1.612A	0.3596A	0.4165A	0.2808A	0.3955	0.6772A	0.5319
.1819	1.561A	0.3450A	0.3775A	0.2720A	0.3590	0.6452A	0.4612
.1683	1.570	0.3424	0.3464	0.2722	0.3504	0.6107	0.4267
.1691	1.520	0.3305	0.3105	0.2658	0.3371	0.5689	0.4149
.1704	1.558	0.3344	0.2998	0.2705	0.3418	0.5537	0.3930
-----B	1.383A	0.2960A	0.2563A	0.2394A	-----B	0.4727A	-----B
.1545C	-----	-----	-----	-----	0.3193C	-----	0.3858C

CHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1
-----	0.0001	0.0002	0.000	1.24	0.004	0.005	0.0002
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0.004	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.000	-----	-----	-----	-----
0.000	-----	-----	0.160	-----	-----	-----	-----
0.004	-----	-----	0.384	-----	-----	-----	-----
0.018	-----	-----	0.768	-----	-----	-----	-----
0.012	-----	-----	0.928	-----	-----	-----	-----
0.016	-----	-----	0.944	-----	-----	-----	-----
0.022	-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	0.912	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----

-C4= PPM MS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
.0002	0.0031	0.0029

ITC-796
SYNTHETIC FUEL #2 - NOX
1984 APRIL 24

NOTES

- A FLAME EXTINGUISHED AND RELIT IN EARLY PORTION OF CHROMATOGRAM.
- B COLUMN TEMPERATURE NOT COOLED TO 80 C (STILL AT 140 C) PRIOR TO FLUSHING. TENAX TUBE WITH N2 ONTO COLUMN.
- C COLUMN TEMPERATURE HAD NOT EQUILIBRATED TO 80 C (~85 C). R.T.'S ARE AFFECTED, PEAK WIDTHS ARE LARGER, BUT AREA SEEMS TO BE O.K.
- D PEAK OF 2-MENAPH NOT WELL ENOUGH RESOLVED FROM N-C14 TO OBTAIN A WIDTH AT HALF HEIGHT.

ITC-797
NOX-AIR + N-OCTANE
1984 APRIL 25

0645: START WET FLUSH.
0820: STOP FLUSH. R.H. ~52% @ 80 F.
77 F DRY BULB
66 F WET BULB
0846: INJECTIONS: 3.6 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0900: 70% LIGHTS
0935: TECO 1510 ON ITC (VACUUM REPAIR DELAYED).
1101: INJECTION: 42.3 MICRO L N-OCTANE
1530: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 900 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.6	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.441	PPM
NO2-UNC	C-1600B	0.107	PPM
N-C4	DMS-1	0.0100	PPM
PROPENE	DMS-1	0.0108	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
1400	C-20H	RM-121; C-20H/DC-703 GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID

ITC-797
NOX-AIR + N-OCTANE
1984 APRIL 25

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH M03-8410	NO PPH C-1600B	NO PPH T 14B-1	NO2-UNC PPH C-1600B	NO2-UNC PPH T 14B-1	NOX-UNC PPH C-1600B	NOX-UNC PPH T 14B-1
1 820	-40	-----	-----	-----	-----	-----	-----	-----
1 845	-15	0.001	0.005	-----	0.005	-----	0.010	-----
1 848	-12	-----	-----	-----	-----	-----	-----	-----
1 900	0	0.001	0.441	-----	0.107	-----	0.547	-----
1 915	15	0.001	0.436	-----	0.111	-----	0.546	-----
1 930	30	0.001	0.430	-----	0.114	-----	0.543	-----
1 945	45	0.001	0.427	0.419	0.109	0.122	0.533	0.5
1 1000	60	0.001	0.420	0.430	0.113	0.122	0.532	0.5
1 1015	75	0.001	0.414	0.431	0.116	0.127	0.528	0.5
1 1030	90	0.001	0.413	0.427	0.116	0.128	0.528	0.5
1 1045	105	0.001	0.408	0.429	0.116	0.131	0.523	0.5
1 1100	120	0.001	0.401	0.432	0.121	0.133	0.521	0.5
1 1105	125	-----	-----	-----	-----	-----	-----	-----
1 1115	135	0.001	0.387	0.415	0.128	0.141	0.514	0.5
1 1130	150	0.001	0.376	0.403	0.137	0.151	0.512	0.5
1 1145	165	0.001	0.364	0.396	0.149	0.162	0.512	0.5
1 1200	180	0.002	0.357	0.390	0.155	0.171	0.511	0.5
1 1215	195	0.002	0.348	0.382	0.164	0.174	0.511	0.5
1 1230	210	0.002	0.342	0.374	0.169	0.183	0.511	0.5
1 1245	225	0.002	0.335	0.366	0.175	0.190	0.508	0.5
1 1300	240	0.002	0.325	0.360	0.183	0.196	0.507	0.5
1 1315	255	0.001	0.320	0.354	0.187	0.207	0.505	0.5
1 1330	270	0.003	0.313	0.348	0.194	0.214	0.505	0.5
1 1345	285	0.003	0.304	0.339	0.201	0.212	0.504	0.5
1 1400	300	0.002	0.296	0.332	0.206	0.225	0.501	0.5
1 1415	315	0.003	0.289	0.327	0.213	0.232	0.501	0.5
1 1430	330	0.003	0.280	0.320	0.221	0.240	0.498	0.5
1 1445	345	0.003	0.273	0.310	0.225	0.245	0.497	0.5
1 1500	360	0.004	0.266	0.300	0.230	0.249	0.495	0.5
1 1515	375	0.004	0.259	0.293	0.236	0.253	0.493	0.5
1 1530	390	0.003	0.254	0.287	0.242	0.260	0.495	0.5

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PAGE 2

UNC M 00B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX-UNC PPM T 14B-1	N-CB PPM C-20M	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=
---	-----	-----	-----	0.0000	0.0002	0.0016	-----
005	-----	0.010	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	0.0100	0.0110	-0.0248
107	-----	0.547	-----	-----	0.0100	0.0108	-0.0050
111	-----	0.546	-----	-----	0.0097	0.0103	0.0130
114	-----	0.543	-----	-----	0.0100	0.0103	0.0423
109	0.122	0.533	0.538	-----	0.0100	0.0099	0.0787
113	0.122	0.532	0.547	-----	0.0094	0.0090	0.1171
116	0.127	0.528	0.555	-----	0.0098	0.0091	0.1387
116	0.128	0.528	0.551	-----	0.0095	0.0086	0.1765
116	0.131	0.523	0.555	-----	0.0095	0.0083	0.2101
121	0.133	0.521	0.561	-----	0.0094	0.0079	0.2333
---	-----	-----	-----	0.9100	-----	-----	-----
128	0.141	0.514	0.553	-----	0.0095	0.0079	0.2604
137	0.151	0.512	0.550	-----	0.0095	0.0078	0.2698
149	0.162	0.512	0.554	-----	0.0095	0.0077	0.2811
155	0.171	0.511	0.557	0.8987	0.0093	0.0075	0.2877
164	0.174	0.511	0.553	-----	0.0095	0.0077	0.2798
169	0.183	0.511	0.552	-----	0.0094	0.0073	0.3126
175	0.190	0.508	0.551	-----	0.0095	0.0074	0.3082
183	0.196	0.507	0.552	0.8883	0.0093	0.0072	0.3281
187	0.207	0.505	0.557	-----	0.0094	0.0072	0.3405
194	0.214	0.505	0.556	-----	0.0091	0.0070	0.3304
201	0.212	0.504	0.548	-----	0.0093	0.0070	0.3490
206	0.225	0.501	0.554	0.8685	0.0093	0.0070	0.3580
213	0.232	0.501	0.554	-----	0.0093	0.0069	0.3656
221	0.240	0.498	0.555	-----	0.0090	0.0066	0.3793
225	0.245	0.497	0.552	-----	0.0092	0.0067	0.3940
230	0.249	0.495	0.547	0.8628	0.0093	0.0066	0.4028
236	0.253	0.493	0.543	-----	-----	-----	-----
242	0.260	0.495	0.544	-----	-----	-----	-----

ITC-797
NOX-AIR + N-OCTANE
1984 APRIL 25

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	HEK PPH 10'C-600	METHA PPH PN-1
1 820	-40	-----	0.000	-----	0.0006	0.0003	0.0000	1.
1 855	-5	-----	-----	0.004	-----	-----	-----	-----
1 915	15	24.8	-----	-----	-----	-----	-----	-----
1 930	30	25.1	-----	-----	-----	-----	-----	-----
1 945	45	25.4	-----	-----	-----	-----	-----	-----
1 1000	60	25.6	-----	0.006	-----	-----	-----	-----
1 1015	75	25.2	-----	-----	-----	-----	-----	-----
1 1030	90	24.8	-----	-----	-----	-----	-----	-----
1 1045	105	24.7	-----	-----	-----	-----	-----	-----
1 1100	120	25.1	0.000	-----	0.0021	0.0006	0.0001	-----
1 1115	135	26.0	-----	-----	-----	-----	-----	-----
1 1130	150	26.5	-----	-----	-----	-----	-----	-----
1 1145	165	26.4	-----	-----	-----	-----	-----	-----
1 1200	180	25.5	0.000	0.008	0.0029	0.0006	0.0002	-----
1 1215	195	25.4	-----	-----	-----	-----	-----	-----
1 1230	210	25.5	-----	-----	-----	-----	-----	-----
1 1245	225	25.6	-----	-----	-----	-----	-----	-----
1 1300	240	25.7	0.000A	0.006	0.0031	0.0003	0.0002	-----
1 1315	255	25.7	-----	-----	-----	-----	-----	-----
1 1330	270	25.8	-----	-----	-----	-----	-----	-----
1 1345	285	25.8	-----	-----	-----	-----	-----	-----
1 1400	300	25.8	0.000	0.006	0.0040	0.0008	0.0002	-----
1 1415	315	25.9	-----	-----	-----	-----	-----	-----
1 1430	330	25.9	-----	-----	-----	-----	-----	-----
1 1445	345	26.0	-----	-----	-----	-----	-----	-----
1 1500	360	26.1	0.000	0.004	0.0037	0.0006	0.0003	-----
1 1515	375	26.2	-----	-----	-----	-----	-----	-----
1 1530	390	26.2	-----	-----	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 820	-40	0.0002	0.0011	0.0012

----- NO DATA TAKEN

NOTES

A BASELINE TRACE EXTREMELY NOISY.

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[illegible]

ITC-798
NAPHTHALENE - NOX
1984 APRIL 26

0630: BEGIN WET FLUSH.
0812: STOP FLUSH. R.H. ~52% @ 80 F.
0812: STOP FLUSH. 77 F DRY BULB
65 F WET BULB
0815: START NAPHTHALENE N2 FLOW 2 L/MIN (90 MINUTES).
0945: INJECTIONS: 3.6 ML NO
0.62 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
1030: 70% LIGHTS
1700: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1030 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.5	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.411	PPM
NO	T 14B-1	0.432	PPM
NO2-UNC	C-1600B	0.115	PPM
NO2-UNC	T 14B-1	0.120	PPM
N-C4	DMS-1	0.0097	PPM
PROPENE	DMS-1	0.0101	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2702	SP C-II	RM-103; SUPERPAK-III; FID(TENAX)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-798
NAPHTHALENE - NOX
1984 APRIL 26

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-8410	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX P T 1
1 810	-140	-----	-----	-----	-----	-----	-----	--
1 830	-120	0.001	0.003	0.005	0.004	0.027	0.007	0
1 952	-38	-----	-----	-----	-----	-----	-----	--
1 1000	-30	0.002	0.414	0.432	0.114	0.119	0.527	0
1 1005	-25	-----	-----	-----	-----	-----	-----	--
1 1015	-15	0.001	0.410	0.432	0.113	0.120	0.522	0
1 1030	0	0.001	0.411	0.432	0.115	0.120	0.525	0
1 1045	15	0.002	0.387	0.413	0.137	0.138	0.522	0
1 1100	30	0.001	0.369	0.393	0.148	0.155	0.516	0
1 1115	45	0.002	0.352	0.375	0.162	0.169	0.512	0
1 1130	60	0.003	0.330	0.355	0.181	0.185	0.510	0
1 1145	75	0.003	0.307	0.335	0.200	0.203	0.505	0
1 1200	90	0.003	0.283	0.311	0.219	0.221	0.501	0
1 1215	105	0.003	0.259	0.286	0.236	0.242	0.493	0
1 1230	120	0.005	0.231	0.261	0.260	0.264	0.490	0
1 1245	135	0.007	0.205	0.233	0.278	0.285	0.482	0
1 1300	150	0.009	0.179	0.204	0.297	0.308	0.474	0
1 1315	165	0.012	0.151	0.175	0.317	0.330	0.467	0
1 1330	180	0.016	0.127	0.148	0.334	0.341	0.459	0
1 1345	195	0.023	0.102	0.124	0.344	0.364	0.445	0
1 1400	210	0.031	0.083	0.103	0.353	0.374	0.434	0
1 1415	225	0.042	0.066	0.085	0.357	0.380	0.422	0
1 1430	240	0.054	0.053	0.068	0.356	0.380	0.407	0
1 1445	255	0.070	0.041	0.058	0.351	0.375	0.392	0
1 1500	270	0.085	0.034	0.049	0.341	0.369	0.374	0
1 1515	285	0.102	0.027	0.041	0.329	0.360	0.355	0
1 1530	300	0.119	0.025	0.037	0.316	0.349	0.340	0
1 1545	315	0.137	0.020	0.032	0.300	0.334	0.320	0
1 1600	330	0.154	0.017	0.028	0.287	0.320	0.303	0
1 1615	345	0.170	0.014	0.025	0.269	0.305	0.283	0
1 1630	360	0.188	0.013	0.023	0.250	0.291	0.263	0
1 1645	375	0.204	0.012	0.020	0.233	0.273	0.244	0

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UNC FOR	NO2-UNC PPM T 14R-1	NOX-UNC PPM C-1600R	NOX-UNC PPM T 14R-1	NAPHTHAL PPM SF C-II	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=
	-----	-----	-----	0.000	0.0001	0.0014	-----
004	0.027	0.007	0.030	-----	-----	-----	-----
	-----	-----	-----	1.929	0.0097	0.0102	0.0195
114	0.119	0.527	0.547	-----	-----	-----	-----
	-----	-----	-----	-----	0.0098	0.0101	0.0339
113	0.120	0.522	0.548	-----	-----	-----	-----
115	0.120	0.525	0.548	1.934	0.0097	0.0101	0.0282
137	0.138	0.522	0.547	-----	0.0100	0.0104	0.0280
148	0.155	0.516	0.544	-----	0.0099	0.0101	0.0507
162	0.169	0.512	0.540	-----	0.0098	0.0100	0.0432
181	0.185	0.510	0.536	1.782	0.0098	0.0098	0.0623
200	0.203	0.505	0.534	-----	0.0097	0.0098	0.0639
219	0.221	0.501	0.528	-----	0.0099	0.0098	0.0817
236	0.242	0.493	0.525	-----	0.0097	0.0096	0.0805
260	0.264	0.490	0.521	1.739	0.0099	0.0097	0.0915
278	0.285	0.482	0.515	-----	0.0098	0.0095	0.0983
297	0.308	0.474	0.508	-----	0.0096	0.0090	0.1274
317	0.330	0.467	0.501	-----	0.0099	0.0091	0.1461
334	0.341	0.459	0.486	1.625	0.0097	0.0087	0.1718
344	0.364	0.445	0.485	-----	0.0099	0.0086	0.2093
353	0.374	0.434	0.473	-----	0.0099	0.0085	0.2263
357	0.380	0.422	0.460	-----	0.0097	0.0082	0.2379
356	0.380	0.407	0.445	1.448	0.0095	0.0076	0.2930
351	0.375	0.392	0.430	-----	0.0095	0.0073	0.3381
341	0.369	0.374	0.414	-----	0.0098	0.0073	0.3559
329	0.360	0.355	0.398	-----	-----	-----	-----
316	0.349	0.340	0.381	1.448	-----	-----	-----
300	0.334	0.320	0.363	-----	-----	-----	-----
287	0.320	0.303	0.344	-----	-----	-----	-----
269	0.305	0.283	0.328	-----	-----	-----	-----
250	0.291	0.263	0.310	1.220	-----	-----	-----
233	0.273	0.244	0.290	-----	-----	-----	-----

ITC-798
NAPHTHALENE - NOX
1984 APRIL 26

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METH PP PN-
1 810	-140	-----	0.000	-----	0.0005	0.0003	0.0000	1
1 910	-80	-----	-----	0.006	-----	-----	-----	---
1 952	-38	-----	-----	-----	-----	-----	-----	---
1 1030	0	-----	0.000	-----	0.0010	0.0004	0.0000	---
1 1045	15	24.9	-----	-----	-----	-----	-----	---
1 1100	30	25.1	-----	-----	-----	-----	-----	---
1 1115	45	25.4	-----	-----	-----	-----	-----	---
1 1130	60	25.7	0.000	0.008	0.0014	0.0001	0.0001	---
1 1145	75	25.9	-----	-----	-----	-----	-----	---
1 1200	90	25.5	-----	-----	-----	-----	-----	---
1 1215	105	25.1	-----	-----	-----	-----	-----	---
1 1230	120	25.1	0.000	0.014	0.0011	0.0002	0.0003	---
1 1245	135	25.1	-----	-----	-----	-----	-----	---
1 1300	150	25.1	-----	-----	-----	-----	-----	---
1 1315	165	25.5	-----	-----	-----	-----	-----	---
1 1330	180	25.9	0.000	0.008	0.0015	0.0003	0.0001	---
1 1345	195	26.0	-----	-----	-----	-----	-----	---
1 1400	210	26.0	-----	-----	-----	-----	-----	---
1 1415	225	26.1	-----	-----	-----	-----	-----	---
1 1430	240	25.7	0.000	0.012	0.0023	0.0010	0.0001	---
1 1445	255	25.7	-----	-----	-----	-----	-----	---
1 1500	270	25.6	-----	-----	-----	-----	-----	---
1 1515	285	25.6	-----	-----	-----	-----	-----	---
1 1530	300	25.6	0.000	0.008	0.0028	0.0025	0.0002	---
1 1545	315	25.6	-----	-----	-----	-----	-----	---
1 1600	330	25.2	-----	-----	-----	-----	-----	---
1 1615	345	25.1	-----	-----	-----	-----	-----	---
1 1620	350	-----	-----	0.004	-----	-----	-----	---
1 1630	360	25.1	0.001	-----	0.0045	0.0041	0.0001	---
1 1645	375	25.2	-----	-----	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	1-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 810	-140	0.0002	0.0011	0.0011

----- NO DATA TAKEN

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PAGE 3

TALD PM -600	ACETONE PPM 10' 600	HEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1
0005	0.0003	0.0000	1.21	0.002	0.004	0.0005	0.0021
-----	-----	-----	-----	-----	-----	-----	-----
0010	0.0004	0.0000	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0014	0.0001	0.0001	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0011	0.0002	0.0003	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0015	0.0003	0.0001	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0023	0.0010	0.0001	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0028	0.0025	0.0002	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----
0045	0.0041	0.0001	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----	-----

ITC-799
SYNTHETIC FUEL #3 - NOX
1984 APRIL 27

0630: START WET FLUSH.
0818: STOP FLUSH. R.H. 50% @ 80 F.
78 F DRY BULB
66 F WET BULB
0855: INJECTONS: 3.6 ML NO
0.62 ML NO2
480 MICRO L SYNTHETIC FUEL #3 (MODIFIED FUEL)
1000: 70% LIGHTS
1600: DUMP BAG.
1630: FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1000 PST

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.7	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	C-1600B	0.428	PPM
NO	T 14B-1	0.425	PPM
NO2-UNC	C-1600B	0.082	PPM
NO2-UNC	T 14B-1	0.121	PPM
N-C6	DB-5C-1	1.8445	PPM
CYC-C6	DB-5C-1	1.0355	PPM
N-C7	DB-5C-1	2.4426	PPM
MECYC-C6	DB-5C-1	1.7116	PPM
N-C8	C-20M	2.2347	PPM
ETCYC-C6	DB-5C-1	0.2823	PPM
N-C14	SP C-II	0.2234	PPM
TOLUENE	DB-5C-1	1.3596	PPM
P-XYL	DB-5C-1	0.3006	PPM
135-TMB	DB-5C-1	0.3596	PPM
TETRALIN	SP C-II	0.2083	PPM
TETRALIN	DB-5C-1	0.2784	PPM

ITC-799
SYNTHETIC FUEL #3 - NOX
1984 APRIL 27

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
1510	T 14B-1	TECD 14B-1 NO-NOX ANALYZER
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP, GC; FID
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2100	PN-1	RM-121; POROPAK-N GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-799
SYNTHETIC FUEL #3 - NOX
1984 APRIL 27

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM M03-B410	NO PPM C-1600B	NO PPM T 14B-1	NO2-UNC PPM C-1600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX- PP T 14
1 845	-75	0.001	0.001	0.007	0.004	0.032	0.006	0.
1 900	-60	0.001	0.427	0.430	0.077	0.129	0.503	0.
1 903	-57	-----	-----	-----	-----	-----	-----	0.
1 945	-15	0.001	0.433	0.426	0.082	0.124	0.514	0.
1 1000	0	0.001	0.428	0.425	0.082	0.121	0.510	0.
1 1015	15	0.002	0.373	0.376	0.133	0.172	0.504	0.
1 1030	30	0.002	0.321	0.323	0.187	0.222	0.507	0.
1 1045	45	0.003	0.258	0.264	0.245	0.276	0.502	0.
1 1100	60	0.009	0.194	0.201	0.304	0.333	0.497	0.
1 1115	75	0.019	0.134	0.141	0.360	0.389	0.493	0.
1 1130	90	0.041	0.082	0.088	0.397	0.434	0.478	0.
1 1145	105	0.086	0.050	0.052	0.417	0.461	0.466	0.
1 1200	120	0.145	0.035	0.033	0.420	0.467	0.453	0.
1 1215	135	0.216	0.026	0.023	0.414	0.462	0.438	0.
1 1230	150	0.292	0.022	0.018	0.402	0.450	0.423	0.
1 1245	165	0.373	0.019	0.015	0.386	0.438	0.404	0.
1 1300	180	0.459	0.017	0.012	0.370	0.424	0.386	0.
1 1315	195	0.539	0.016	0.011	0.352	0.404	0.367	0.
1 1330	210	0.619	0.015	0.010	0.334	0.386	0.348	0.
1 1345	225	0.682	0.015	0.010	0.316	0.365	0.329	0.
1 1400	240	0.741	0.014	0.009	0.300	0.347	0.312	0.
1 1415	255	0.782	0.014	0.009	0.283	0.330	0.296	0.
1 1430	270	0.813	0.014	0.009	0.266	0.312	0.278	0.
1 1445	285	0.832	0.014	0.009	0.257	0.300	0.269	0.
1 1500	300	0.840	0.012	0.009	0.246	0.293	0.258	0.
1 1515	315	0.840	0.013	0.009	0.239	0.283	0.250	0.
1 1530	330	0.836	0.013	0.008	0.234	0.277	0.245	0.
1 1545	345	0.827	0.012	0.009	0.226	0.272	0.238	0.
1 1600	360	0.814	0.012	0.008	0.225	0.268	0.236	0.

UNC PM 600B	NO2-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1
.004	0.032	0.006	0.034	-----	-----	-----	-----
.077	0.129	0.503	0.554	-----	-----	-----	-----
-----	-----	-----	-----	-----	1.928A	1.072A	2.529A
.082	0.124	0.514	0.545	-----	-----	-----	-----
.082	0.121	0.510	0.542	-----	1.845	1.035	2.443
.133	0.172	0.504	0.544	24.8	-----	-----	-----
.187	0.222	0.507	0.542	25.2	-----	-----	-----
.245	0.276	0.502	0.537	25.5	-----	-----	-----
.304	0.333	0.497	0.530	25.7	1.966A	1.087A	2.557A
.360	0.389	0.493	0.527	25.9	-----	-----	-----
.397	0.434	0.478	0.517	26.1	-----	-----	-----
.417	0.461	0.466	0.509	26.0	-----	-----	-----
.420	0.467	0.453	0.496	25.6	1.909A	1.065A	2.515A
.414	0.462	0.438	0.482	25.3	-----	-----	-----
.402	0.450	0.423	0.465	25.3	-----	-----	-----
.386	0.438	0.404	0.449	25.4	-----	-----	-----
.370	0.424	0.386	0.432	25.9	1.899A	1.058A	2.477A
.352	0.404	0.367	0.412	25.8	-----	-----	-----
.334	0.386	0.348	0.392	25.8	-----	-----	-----
.316	0.365	0.329	0.372	25.8	-----	-----	-----
.300	0.347	0.312	0.352	25.7	1.780A	0.9975A	2.337A
.283	0.330	0.296	0.335	25.8	-----	-----	-----
.266	0.312	0.278	0.319	26.1	-----	-----	-----
.257	0.300	0.269	0.307	25.9	-----	-----	-----
.246	0.293	0.258	0.299	25.9	1.616A	0.9176A	2.140A
.239	0.283	0.250	0.290	26.2	-----	-----	-----
.234	0.277	0.245	0.282	26.0	-----	-----	-----
.226	0.272	0.238	0.277	25.9	-----	-----	-----
.225	0.268	0.236	0.273	26.1	1.986	1.101	2.558

ITC-799
SYNTHETIC FUEL #3 - NOX
1984 APRIL 27

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MECYC-C6 PPM DB-5C-1	N-CB PPM C-20M	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-11	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-T PPM DB-5C
1 833	-87	-----	-----	-----	0.0001	-----	-----	-----
1 903	-57	1.763A	2.302A	0.2899A	-----	1.398A	0.3078A	0.36
1 906	-54	-----	-----	-----	-----B	-----	-----	-----
1 928	-32	-----	-----	-----	0.2262	-----	-----	-----
1 1000	0	1.712	2.235	0.2823	0.2234	1.360	0.3006	0.35
1 1100	60	1.777A	2.326A	0.2917A	0.2267	1.409A	0.3102A	0.35
1 1200	120	1.748A	2.294A	0.2872A	0.2171	1.390A	0.3055A	0.32
1 1300	180	1.713A	2.256A	0.2803A	0.2063	1.414A	0.2972A	0.29
1 1400	240	1.616A	2.128A	0.2629A	0.1797	1.314A	0.2786A	0.25
1 1500	300	1.483A	1.951A	0.2402A	0.1832	1.191A	0.2564A	0.22
1 1600	360	1.733	2.298	0.2799	0.1797	1.424	0.2951	0.24

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	2-MENAPH M.VOLTS SP C-II	2,3-DMN PPM SP C-II	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-6
1 824	-96	-----	-----	0.000	-----	0.0007	0.0001	0.00
1 833	-87	0.0000	0.0000	-----	-----	-----	-----	-----
1 906	-54	93.70C	0.0625	-----	-----	-----	-----	-----
1 915	-45	-----	-----	-----	0.004D	-----	-----	-----
1 928	-32	97.02	0.0629	-----	-----	-----	-----	-----
1 1000	0	97.28	0.0605	0.000	-----	-----	-----	-----
1 1100	60	93.18	0.0549	0.001	0.008	-----	-----	-----
1 1200	120	87.55	0.0461	0.007	0.014	-----	-----	-----
1 1300	180	77.31	0.0351	0.020	0.010	-----	-----	-----
1 1400	240	66.05	0.0253	0.033	0.008	-----	-----	-----
1 1500	300	59.90	0.0201	0.045	0.024	-----	-----	-----
1 1550	350	-----	-----	-----	0.034	-----	-----	-----
1 1600	360	56.32	0.0177	0.045	-----	-----	-----	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETY/ PPM PN-
1 824	-96	0.0002	0.0008	0.0009	0.0014	0.0002	0.0012	0.0

----- NO DATA TAKEN

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14 M -II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM SP C-II	TETRALIN PPM DB-5C-1
001	-----	-----	-----	-----	0.0010	0.0000	-----
---	1.398A	0.3078A	0.3653A	0.2432A	-----	-----	0.2911A
---B	-----	-----	-----	-----	0.1598	0.2134	-----
262	-----	-----	-----	-----	0.1748	0.2134	-----
234	1.360	0.3006	0.3596	0.2380	0.1670	0.2083	0.2784
267	1.409A	0.3102A	0.3561A	0.2469A	0.1615	0.2135	0.2800A
171	1.390A	0.3055A	0.3281A	0.2464A	0.1510	0.1866	0.2813A
063	1.414A	0.2972A	0.2967A	0.2413A	0.1523	0.1793	0.2578A
797	1.314A	0.2786A	0.2541A	0.2281A	0.1431	0.1675	0.2276A
832	1.191A	0.2564A	0.2270A	0.2099A	0.1427	0.1556	0.1988A
797	1.424	0.2951	0.2452	0.2454	0.1376	0.1425	0.2173

10 PM N	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1
----	0.0007	0.0001	0.0003	0.000	1.11	0.002	0.005
----	-----	-----	-----	-----	-----	-----	-----
----	-----	-----	-----	-----	-----	-----	-----
004D	-----	-----	-----	-----	-----	-----	-----
----	-----	-----	-----	-----	-----	-----	-----
----	-----	-----	-----	0.000	-----	-----	-----
008	-----	-----	-----	0.000	-----	-----	-----
014	-----	-----	-----	0.228	-----	-----	-----
010	-----	-----	-----	0.464	-----	-----	-----
008	-----	-----	-----	0.592	-----	-----	-----
024	-----	-----	-----	0.768	-----	-----	-----
034	-----	-----	-----	-----	-----	-----	-----
----	-----	-----	-----	0.608	-----	-----	-----

PENE PM B-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
0014	0.0002	0.0012	0.0008

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ITC-799
SYNTHETIC FUEL #3 - NOX
1984 APRIL 27

NOTES

- A FLAME EXTINGUISHED AT EARLY PART OF CHROMATOGRAM AND RELIGHTED.
- B OFFSCALE ON X256, ATTENUATION CHANGE WHILE N-C14 WAS ELUTING. CANNOT GET WIDTH AT HALF HEIGHT.
- C 2-MENAPHTHALENE PEAK NOT WELL ENOUGH RESOLVED TO MEASURE WIDTH AT HALF HEIGHT. GAVE MV RESPONSE INSTEAD--NO FACTOR.
- D BUBBLERS A AND B HCHO CONDITIONED OVER WEEKEND.

ITC-800
NOX-AIR + METHYLCYCLOHEXANE
1984 APRIL 30

0630: BEGIN WET FLUSH.
0815: STOP FLUSH. R.H. 51% @ 80 F.
74 F DRY BULB
65 F WET BULB

0903: INJECTIONS: 0.064 ML PROPENE
0.064 ML N-BUTANE
0.62 ML NO2
3.6 ML NO

0915: 70% LIGHTS
1115: INJECTION: 33.2 MICRO L METHYLCYCLOHEXANE
1520: DUMP BAG. FLUSH 2 HOURS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.0	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.397	PPM
NO	C-1600B	0.461	PPM
NO2-UNC	T 14B-1	0.141	PPM
NO2-UNC	C-1600B	0.151	PPM
N-C4	DMS-1	0.0101	PPM
PROPENE	DMS-1	0.0105	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
1626	C-1600B	COLUMBIA 1600 NO-NOX ANALYZER, SN11506A
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
1400	C-20M	RM-121; C-20M/DC-703 GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID

ITC-800
NOX-AIR + METHYLCYCLOHEXANE
1984 APRIL 30

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO PPH C-1600B	NO2-UNC PPH T 14B-1	NO2-UNC PPH C-1600B	NOX-UNC PPH T 14B-1	NOX-U PPH C-160
1 832	-43	-----	-----	-----	-----	-----	-----	-----
1 900	-15	0.000	0.001	0.000	0.000	0.000	0.000	0.0
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.000	0.397	0.461	0.141	0.151	0.535	0.6
1 930	15	0.000	0.400	0.447	0.143	0.149	0.540	0.5
1 945	30	0.000	0.399	0.434	0.141	0.149	0.538	0.5
1 1000	45	0.001	0.400	0.429	0.143	0.148	0.540	0.5
1 1015	60	0.002	0.399	0.420	0.144	0.151	0.540	0.5
1 1030	75	0.002	0.398	0.414	0.143	0.150	0.539	0.5
1 1045	90	0.009	0.393	0.412	0.147	0.147	0.537	0.5
1 1100	105	0.002	0.393	0.407	0.148	0.149	0.538	0.5
1 1115	120	0.000	0.392	0.402	0.148	0.149	0.537	0.5
1 1120	125	-----	-----	-----	-----	-----	-----	-----
1 1130	135	0.009	0.377	0.385	0.160	0.159	0.534	0.5
1 1145	150	0.009	0.364	0.371	0.173	0.171	0.534	0.5
1 1200	165	0.011	0.352	0.354	0.184	0.186	0.533	0.5
1 1215	180	0.011	0.342	0.341	0.192	0.195	0.531	0.5
1 1230	195	0.011	0.333	0.329	0.202	0.204	0.532	0.5
1 1245	210	0.010	0.323	0.320	0.211	0.212	0.531	0.5
1 1300	225	0.010	0.314	0.310	0.219	0.222	0.531	0.5
1 1315	240	0.011	0.305	0.297	0.227	0.229	0.530	0.5
1 1330	255	0.011	0.296	0.287	0.237	0.237	0.529	0.5
1 1345	270	0.011	0.286	0.275	0.246	0.244	0.529	0.5
1 1400	285	0.015	0.277	0.266	0.256	0.253	0.530	0.5
1 1415	300	0.013	0.267	0.255	0.264	0.264	0.528	0.5
1 1430	315	0.012	0.259	0.247	0.272	0.267	0.528	0.5
1 1445	330	0.014	0.251	0.236	0.278	0.281	0.526	0.5
1 1500	345	0.013	0.243	0.228	0.287	0.285	0.527	0.5
1 1515	360	0.012	0.236	0.218	0.297	0.291	0.530	0.5

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-UNC PM 4B-1	NO2-UNC PPM C-1600B	NOX-UNC PPM T 14B-1	NOX-UNC PPM C-1600B	MECYC-C6 PPM C-20M	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=
0.000	0.000	0.000	0.000	0.0000	0.0002	0.0016	-----
					0.0103	0.0110	0.0037
0.141	0.151	0.535	0.614	-----	0.0101	0.0105	0.0239
0.143	0.149	0.540	0.598	-----	0.0103	0.0104	0.0615
0.141	0.149	0.538	0.586	-----	0.0100	0.0096	0.1139
0.143	0.148	0.540	0.578	-----	0.0099	0.0091	0.1575
0.144	0.151	0.540	0.572	-----	0.0102	0.0091	0.1816
0.143	0.150	0.539	0.566	-----	0.0100	0.0085	0.2254
0.147	0.147	0.537	0.560	-----	0.0089	0.0075	0.2423
0.148	0.149	0.538	0.557	-----	0.0101	0.0082	0.2831
0.148	0.149	0.537	0.554	-----	0.0099	0.0076	0.3231
				1.103	-----	-----	-----
0.160	0.159	0.534	0.546	-----	0.0099	0.0076	0.3355
0.173	0.171	0.534	0.544	-----	0.0098	0.0076	0.3250
0.184	0.186	0.533	0.542	-----	0.0098	0.0073	0.3627
0.192	0.195	0.531	0.537	0.8897	0.0093	0.0067	0.3867
0.202	0.204	0.532	0.535	-----	0.0098	0.0071	0.3820
0.211	0.212	0.531	0.531	-----	0.0095	0.0068	0.4028
0.219	0.222	0.531	0.532	-----	0.0098	0.0070	0.4074
0.227	0.229	0.530	0.527	0.8738	-----A	-----A	-----A
0.237	0.237	0.529	0.527	-----	-----	-----	-----
0.246	0.244	0.529	0.522	-----	-----	-----	-----
0.256	0.253	0.530	0.521	-----	-----	-----	-----
0.264	0.264	0.528	0.520	0.8579	-----	-----	-----
0.272	0.267	0.528	0.516	-----	-----	-----	-----
0.278	0.281	0.526	0.517	-----	-----	-----	-----
0.287	0.285	0.527	0.515	-----	-----	-----	-----
0.297	0.291	0.530	0.510	0.8390	-----	-----	-----

ITC-800
NOX-AIR + METHYLCYCLOHEXANE
1984 APRIL 30

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	ME PPM 10'C-600
1 832	-43	-----	0.000	-----	0.0019	0.0003	0.0005	
1 915	0	-----	-----	0.018	-----	-----	-----	-
1 930	15	23.9	-----	-----	-----	-----	-----	-
1 945	30	24.3	-----	-----	-----	-----	-----	-
1 1000	45	24.7	-----	-----	-----	-----	-----	-
1 1015	60	24.9	-----	0.018	-----	-----	-----	-
1 1030	75	25.1	-----	-----	-----	-----	-----	-
1 1045	90	25.3	-----	-----	-----	-----	-----	-
1 1100	105	25.4	-----	-----	-----	-----	-----	-
1 1115	120	25.4	0.000	0.020	0.0022	0.0002	0.0005	-
1 1130	135	24.7	-----	-----	-----	-----	-----	-
1 1145	150	24.5	-----	-----	-----	-----	-----	-
1 1200	165	24.5	-----	-----	-----	-----	-----	-
1 1215	180	24.6	0.000	0.049	0.0031	0.0008	-----A	-
1 1230	195	24.8	-----	-----	-----	-----	-----	-
1 1245	210	24.9	-----	-----	-----	-----	-----	-
1 1300	225	25.0	-----	-----	-----	-----	-----	-
1 1315	240	25.1	0.000	0.251	0.0032	0.0009	-----A	-
1 1330	255	25.2	-----	-----	-----	-----	-----	-
1 1345	270	25.3	-----	-----	-----	-----	-----	-
1 1400	285	25.3	-----	-----	-----	-----	-----	-
1 1415	300	25.3	0.000	0.247	0.0039	0.0009	-----A	-
1 1430	315	25.4	-----	-----	-----	-----	-----	-
1 1445	330	25.4	-----	-----	-----	-----	-----	-
1 1500	345	25.8	-----	-----	-----	-----	-----	-
1 1505	350	-----	-----	0.026	-----	-----	-----	-
1 1515	360	26.1	0.000	-----	0.0041	0.0009	-----A	-

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 832	-43	0.0002	0.0013	0.0014

----- NO DATA TAKEN

NOTES

A METHYLCYCLOHEXANE INTERFERENCE.

27-JUL-84
PAGE 3

ILD I 500	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1
019	0.0003	0.0005	1.24	0.003	0.005	0.0007	0.0018
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022	0.0002	0.0005	---	---	---	---	---
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031	0.0008	-----A	---	---	---	---	---
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032	0.0009	-----A	---	---	---	---	---
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039	0.0009	-----A	---	---	---	---	---
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041	0.0009	-----A	---	---	---	---	---

ITC-801
SYNTHETIC FUEL #3 - NOX
1984 MAY 1

0630: START WET FLUSH.
0809: STOP FLUSH. 65 F WET BULB
75 F DRY BULB
0846: INJECTIONS: 3.6 ML NO
0.64 ML NO2
240 MICRO L 'MODIFIED AROMATICS'
SYNTHETIC FUEL #3
1000: 70X LIGHTS
1700: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1000 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.7	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.420	PPM
NO2-UNC	T 14B-1	0.126	PPM
N-C6	DB-5C-1	0.7920	PPM
CYC-C6	DB-5C-1	0.4469	PPM
N-C7	DB-5C-1	1.0659	PPM
MECYC-C6	DB-5C-1	0.7602	PPM
N-C8	DB-5C-1	0.9859	PPM
ETCYC-C6	DB-5C-1	0.1260	PPM
TOLUENE	DB-5C-1	0.6108	PPM
P-XYL	DB-5C-1	0.1343	PPM
135-TMB	DB-5C-1	0.1601	PPM
TETRALIN	DB-5C-1	0.1302	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP, GC1 FID
2702	SP C-II	RM-1031 SUPERPAK-II1 FID(TENAX)
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2920	10'C-600	RM-1211 10' 10X CARBOWAX-600 GC1 FID
2000	ECD-1	RM-1211 12' 5X CARBOWAX-400 GC1 ECD
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID

ITC-801
SYNTHETIC FUEL #3 - NOX
1984 MAY 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C PPM DB-5
1 845	-75	0.010	0.000	0.005	0.024	0.025	-----	---
1 856	-64	-----	-----	-----	-----	-----	-----	---
1 945	-15	0.033	0.000	0.424	0.120	0.539	-----	---
1 1000	0	0.022	0.000	0.420	0.126	0.538	-----	0.7
1 1015	15	0.023	0.001	0.391	0.149	0.535	24.4	---
1 1030	30	0.015	0.003	0.356	0.184	0.534	24.8	---
1 1045	45	0.019	0.004	0.322	0.217	0.534	25.2	---
1 1100	60	0.015	0.004	0.283	0.253	0.530	25.5	0.8
1 1115	75	0.021	0.007	0.240	0.293	0.528	25.2	---
1 1130	90	0.022	0.011	0.197	0.332	0.525	24.4	---
1 1145	105	0.031	0.018	0.155	0.369	0.520	24.5	---
1 1200	120	0.036	0.029	0.117	0.402	0.515	24.6	1.0
1 1215	135	0.055	0.047	0.085	0.426	0.507	24.7	---
1 1230	150	0.076	0.073	0.062	0.443	0.501	24.7	---
1 1245	165	0.113	0.105	0.046	0.458	0.496	24.7	---
1 1300	180	0.161	0.146	0.034	0.462	0.488	24.7	0.7
1 1315	195	0.202	0.189	0.027	0.455	0.475	24.7	---
1 1330	210	0.251	0.236	0.022	0.450	0.465	24.7	---
1 1345	225	0.302	0.289	0.019	0.443	0.455	24.6	---
1 1400	240	0.360	0.342	0.016	0.435	0.446	24.6	0.7
1 1415	255	0.418	0.398	0.014	0.426	0.434	24.5	---
1 1430	270	0.470	0.455	0.013	0.411	0.419	24.5	---
1 1445	285	0.530	0.515	0.012	0.402	0.408	24.5	---
1 1500	300	0.583	0.567	0.013	0.386	0.393	24.6	0.8
1 1515	315	0.635	0.626	0.010	0.375	0.380	24.6	---
1 1530	330	0.691	0.680	0.010	0.363	0.367	24.7	---
1 1545	345	0.741	0.728	0.009	0.350	0.354	24.7	---
1 1600	360	0.779	0.771	0.009	0.336	0.339	24.7	0.8
1 1615	375	0.819	0.811	0.009	0.324	0.328	24.7	---
1 1630	390	0.848	0.840	0.009	0.313	0.317	24.7	---
1 1645	405	0.870	0.862	0.009	0.302	0.306	24.9	---
1 1700	420	0.881	0.880	0.009	0.294	0.297	24.8	---

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PAGE 2

-UNC PM 4B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1	N-C8 PPM DB-5C-1
.024	0.025	-----	-----	-----	-----	-----	-----
.120	0.539	-----	-----B	0.4620A	1.076A	0.7611A	0.9889A
.126	0.538	-----	0.7920	0.4469	1.066	0.7602	0.9859
.149	0.535	24.4	-----	-----	-----	-----	-----
.184	0.534	24.8	-----	-----	-----	-----	-----
.217	0.534	25.2	-----	-----	-----	-----	-----
.253	0.530	25.5	0.8500A	0.4828A	1.157A	0.7995A	1.052A
.293	0.528	25.2	-----	-----	-----	-----	-----
.332	0.525	24.4	-----	-----	-----	-----	-----
.369	0.520	24.5	-----	-----	-----	-----	-----
.402	0.515	24.6	1.032A	0.5589A	1.317A	0.9054A	1.192A
.426	0.507	24.7	-----	-----	-----	-----	-----
.443	0.501	24.7	-----	-----	-----	-----	-----
.458	0.496	24.7	-----	-----	-----	-----	-----
.462	0.488	24.7	0.7746A	0.4458A	1.041A	0.7284A	0.9568A
.455	0.475	24.7	-----	-----	-----	-----	-----
.450	0.465	24.7	-----	-----	-----	-----	-----
.443	0.455	24.6	-----	-----	-----	-----	-----
.435	0.446	24.6	0.7681	0.4386	1.024	0.7113	0.9344
.426	0.434	24.5	-----	-----	-----	-----	-----
.411	0.419	24.5	-----	-----	-----	-----	-----
.402	0.408	24.5	-----	-----	-----	-----	-----
.386	0.393	24.6	0.8442A	0.4679A	1.103A	0.7514A	1.002A
.375	0.380	24.6	-----	-----	-----	-----	-----
.363	0.367	24.7	-----	-----	-----	-----	-----
.350	0.354	24.7	-----	-----	-----	-----	-----
.336	0.339	24.7	0.8200A	0.4550A	1.065A	0.7209A	0.9646A
.324	0.328	24.7	-----	-----	-----	-----	-----
.313	0.317	24.7	-----	-----	-----	-----	-----
.302	0.306	24.9	-----	-----	-----	-----	-----
.294	0.297	24.8	-----	-----	-----	-----	-----

ITC-801
SYNTHETIC FUEL #3 - NOX
1984 MAY 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETCYC-C6 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPH1 PP SP C
1 820	-100	-----	0.0000	-----	-----	-----	-----	0.0
1 855	-65	-----	0.1114	-----	-----	-----	-----	0.0
1 856	-64	0.1259A	-----	0.6104A	0.1336A	0.1585A	0.1060A	---
1 917	-43	-----	0.1002	-----	-----	-----	-----	0.0
1 1000	0	0.1260	-----C	0.6108	0.1343	0.1601	0.1064	---
1 1100	60	0.1329A	-----D	0.6376A	0.1403A	0.1599A	0.1122A	---
1 1130	90	-----	0.1161	-----	-----	-----	-----	0.0
1 1200	120	0.1492A	0.1024	0.7079A	0.1575A	0.1667A	0.1262A	0.0
1 1300	180	0.1198A	-----F	0.5927A	0.1272A	0.1238A	0.1039A	---
1 1330	210	-----	0.0864E	-----	-----	-----	-----	0.0
1 1400	240	0.1156	0.0895	0.5804	0.1215	0.1069	0.1005	0.0
1 1500	300	0.1224A	0.0873	0.6137A	0.1290A	0.1009A	0.1079A	0.0
1 1600	360	0.1168A	0.0833	0.6041A	0.1223A	0.0851A	0.1049A	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' RAW DATA ECD-1	METH PP PN-
1 816	-104	0.000	-----	0.0009	0.0002	0.0008	0.000	1
1 910	-50	-----	0.049	-----	-----	-----	-----	---
1 1000	0	0.000	-----	-----	-----	-----	0.000	---
1 1100	60	0.000	0.030	-----	-----	-----	0.000	---
1 1200	120	0.002	0.022	-----	-----	-----	0.000	---
1 1300	180	0.007	0.026	-----	-----	-----	0.208	---
1 1400	240	0.013	-----	-----	-----	-----	0.320	---
1 1500	300	0.023	0.036	-----	-----	-----	0.448	---
1 1600	360	0.032	0.059	-----	-----	-----	0.416	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 816	-104	0.0016	0.0014	0.0002	0.0016	0.0017

----- NO DATA TAKEN

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PAGE 3

XYL PPM SC-1	135-TMB PPM DB-SC-1	I-C3-BZ PPM DB-SC-1	NAPHTHAL PPM SP C-II	TETRALIN PPM SP C-II	TETRALIN PPM DB-SC-1	2-MENAPH PPM SP C-II	2,3-DMN PPM SP C-II
-----	-----	-----	0.0000	0.0000	-----	-----	0.0000
-----	-----	-----	0.0848	0.1084	-----	-----	0.0290
1336A	0.1585A	0.1060A	-----	-----	0.1350A	-----	-----
-----	-----	-----	0.0760	0.0995	-----	-----	0.0284
1343	0.1601	0.1064	-----C	-----C	0.1302	-----C	-----C
1403A	0.1599A	0.1122A	-----D	-----D	0.1314A	-----D	-----D
-----	-----	-----	0.0737	0.1020	-----	-----	0.0245
1575A	0.1667A	0.1262A	0.0794	0.1050	0.1411A	-----	0.0198
1272A	0.1238A	0.1039A	-----F	-----F	0.1136A	-----F	-----F
-----	-----	-----	0.0704E	0.0954E	-----	-----	0.0147E
1215	0.1069	0.1005	0.0686	0.0896	0.1038	-----	0.0122
1290A	0.1009A	0.1079A	0.0629	0.0800	0.1034A	-----	0.0093
1223A	0.0851A	0.1049A	0.0632	0.0736	0.0917A	-----	0.0067

ETONE PPM C-600	MEK PPM 10'C-600	RT=0.8' RAW DATA ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1
0.0002	0.0008	0.000	1.27	0.002	0.005	0.0003	0.0007
-----	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.000	-----	-----	-----	-----	-----
-----	-----	0.000	-----	-----	-----	-----	-----
-----	-----	0.000	-----	-----	-----	-----	-----
-----	-----	0.208	-----	-----	-----	-----	-----
-----	-----	0.320	-----	-----	-----	-----	-----
-----	-----	0.448	-----	-----	-----	-----	-----
-----	-----	0.416	-----	-----	-----	-----	-----

TYLEN PPM MS-1	ACETYLEN PPM PN-1
0.0016	0.0017

ITC-801
SYNTHETIC FUEL #3 - NOX
1984 MAY 1

NOTES

- A FLAME EXTINGUISHED AND RELIT DURING EARLY PORTION OF CHROMATOGRAM.
- B FLAME WAS OUT AT THIS POINT--MISSED PEAK.
- C TENAX TUBE BROKE WHEN HEAT DESORBER WAS PUT ON IT.
- D SAMPLE TAKEN AT THESE TIMES BUT THE PEAKS WERE UNUSUALLY BROAD AND POORLY RESOLVED--SUSPECT LEAK AREAS NOT CALCULATED BECAUSE THE PEAK SHAPES WERE SO DISTORTED. NEW TENAX TUBE USED.
- E NEW FERRULE BETWEEN G.C. COLUMN AND TENAX TUBE USED.
- F NEW TENAX TUBE USED.

ITC-802
NAPHTHALENE - NOX
1984 MAY 2

0630: BEGIN WET FLUSH.
0820: STOP FLUSH. R.H. ~48% @ 80 F.
64 F WET BULB
73 F DRY BULB
0830: START 45 MINUTE FLUSH OF NAPHTHALENE TUBE AT 2 L/MIN.
0925: INJECTIONS: 3.4 ML NO
0.64 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
1000: 70% LIGHTS
1610: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1000 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.0	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.420	PPM
NO2-UNC	T 14B-1	0.112	PPM
NAPHTHAL	SP C-II	0.8390	PPM
PROPENE	DMS-1	0.0103	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-802
NAPHTHALENE - NOX
1984 MAY 2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	NAPHTHAL PPM SP C-II	N-C PPM DMS
		-----	-----	-----	-----	-----	0.0000	0.0
1 828	-92	-----	-----	-----	-----	-----	-----	-----
1 915	-45	-----	0.001	0.005	0.027	0.030	0.8794	0.0
1 930	-30	0.002	-----	-----	-----	-----	0.9502	0.0
1 945	-15	0.058	0.001	0.398	0.136	0.500	-----	-----
1 1000	0	0.011	0.001	0.420	0.112	0.500	0.8390	0.0
1 1015	15	0.002	0.001	0.400	0.130	0.528	-----	0.0
1 1030	30	0.004	0.003	0.384	0.143	0.524	-----	0.0
1 1045	45	0.010	0.003	0.366	0.157	0.521	-----	0.0
1 1100	60	0.002	0.003	0.350	0.176	0.524	0.7708	0.0
1 1115	75	0.013	0.004	0.331	0.193	0.520	-----	0.0
1 1130	90	0.007	0.004	0.311	0.210	0.518	-----	0.0
1 1145	105	0.022	0.004	0.288	0.227	0.513	-----	0.0
1 1200	120	0.022	0.007	0.266	0.247	0.511	0.7221	0.0
1 1215	135	0.021	0.007	0.244	0.264	0.505	-----	0.0
1 1230	150	0.021	0.009	0.222	0.282	0.501	-----	0.0
1 1245	165	0.023	0.010	0.200	0.299	0.497	-----	0.0
1 1300	180	0.033	0.014	0.179	0.313	0.489	0.6780	0.0
1 1315	195	0.040	0.017	0.158	0.327	0.482	-----	0.0
1 1330	210	0.032	0.020	0.139	0.337	0.474	-----	0.0
1 1345	225	0.037	0.026	0.122	0.348	0.468	-----	0.0
1 1400	240	0.050	0.031	0.107	0.361	0.460	0.6158	0.0
1 1415	255	0.060	0.038	0.094	0.362	0.453	-----	0.0
1 1430	270	0.070	0.045	0.083	0.365	0.445	-----	0.0
1 1445	285	0.067	0.055	0.072	0.367	0.437	-----	0.0
1 1500	300	0.076	0.063	0.063	0.366	0.427	0.5770	0.0
1 1515	315	0.094	0.074	0.056	0.367	0.420	-----	0.0
1 1530	330	0.104	0.083	0.049	0.361	0.408	-----	0.0
1 1545	345	0.113	0.093	0.045	0.357	0.399	-----	0.0
1 1600	360	0.124	0.105	0.041	0.351	0.389	0.4918	0.0

UNC M R-1	NOX-UNC PPM T 14B-1	NAPHTHAL PPM SP C-II	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	HCHO PPM CA
---	-----	0.0000	0.0003	0.0013	-----	-----	-----
027	0.030	-----	-----	-----	-----	-----	-----
---	-----	0.8794	0.0095	0.0100	0.0134	-----	-----
136	0.500	0.9502	0.0098	0.0105	0.0026	-----	0.014
---	-----	-----	-----	-----	-----	-----	-----
112	0.500	0.8390	0.0098	0.0103	0.0117	-----	-----
130	0.528	-----	0.0100	0.0102	0.0412	24.9	-----
143	0.524	-----	0.0096	0.0099	0.0320	24.6	-----
157	0.521	-----	0.0097	0.0096	0.0686	24.0	-----
176	0.524	0.7708	0.0099	0.0101	0.0455	23.9	0.016
193	0.520	-----	0.0097	0.0098	0.0614	24.0	-----
210	0.518	-----	0.0100	0.0099	0.0787	24.0	-----
227	0.513	-----	0.0100	0.0098	0.0906	23.8	-----
247	0.511	0.7221	0.0099	0.0094	0.1116	23.7	0.014
264	0.505	-----	0.0097	0.0090	0.1400	23.7	-----
282	0.501	-----	0.0098	0.0090	0.1514	23.9	-----
299	0.497	-----	0.0098	0.0087	0.1810	24.3	-----
313	0.489	0.6780	0.0095	0.0084	0.1991	24.3	0.020
327	0.482	-----	0.0099	0.0084	0.2339	24.4	-----
337	0.474	-----	0.0095	0.0080	0.2472	24.3	-----
348	0.468	-----	0.0096	0.0075	0.3129	24.2	-----
361	0.460	0.6158	0.0097	0.0076	0.3188	23.7	0.018
362	0.453	-----	0.0096	0.0072	0.3541	23.5	-----
365	0.445	-----	0.0096	0.0069	0.3964	23.6	-----
367	0.437	-----	0.0097	0.0068	0.4297	23.6	-----
366	0.427	0.5770	0.0094	0.0062	0.4892	23.7	0.024
367	0.420	-----	0.0093	0.0059	0.5248	23.8	-----
361	0.408	-----	0.0091	0.0056	0.5631	23.8	-----
357	0.399	-----	0.0093	0.0053	0.6315	23.8	-----
351	0.389	0.4918	0.0095	0.0050	0.7131	23.9	0.012

ITC-802
NAPHTHALENE - NOX
1984 MAY 2

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	PAN PPH ECD-1	RT=0.8' M.VOLTS ECD-1	METHANE PPH PN-1	ETHAN PPH PN-1
1 828	-92	0.0007	0.0002	0.0003	0.000	0.0000	1.23	0.0
1 1000	0	0.0006	0.0004	0.0002	0.000	0.0000	-----	----
1 1100	60	0.0011	0.0007	0.0002	0.000	0.0000	-----	----
1 1200	120	0.0016	0.0010	0.0003	0.000	0.0000	-----	----
1 1300	180	0.0024	0.0013	0.0004	0.000	0.0000	-----	----
1 1400	240	0.0020	0.0027	0.0003	0.000	0.0000	-----	----
1 1500	300	0.0036	-----A	0.0004	0.000	0.0000	-----	----
1 1600	360	0.0038	-----A	0.0005	0.000	0.0000	-----	----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
1 828	-92	0.0014	0.0013

----- NO DATA TAKEN

NOTES

A MISSED PEAK--BASELINE CHANGING FROM NAPHTHALENE PEAK.

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PAGE 3

AN PM D-1	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1
0.000	0.0000	1.23	0.003	0.005	0.0007	0.0020	0.0002
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----
0.000	0.0000	-----	-----	-----	-----	-----	-----

HALENE PEAK.

ITC-803
NOX-AIR IRRADIATION
1984 MAY 3

0630: BEGIN WET FLUSH.
0825: STOP FLUSH. R.H. ~47%
63 F WET BULB
75 F DRY BULB
0854: INJECTIONS: 0.31 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
1.8 ML NO
0915: 70% LIGHTS
1120: DUMP BAG. FLUSH 2 HOURS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.1	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.218	PPM
NO2-UNC	T 14B-1	0.070	PPM
N-C4	DMS-1	0.0102	PPM
PROPENE	DMS-1	0.0112	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID

ITC-803
NOX-AIR IRRADIATION
1984 MAY 3

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-B410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	P
1 826	-49	-----	-----	-----	-----	-----	0.0003	
1 845	-30	0.001	0.001	0.005	0.025	0.030	-----	
1 858	-17	-----	-----	-----	-----	-----	0.0104	
1 900	-15	0.003	0.001	0.217	0.069	0.285	-----	
1 905	-10	-----	-----	-----	-----	-----	-----	
1 915	0	0.003	0.001	0.218	0.070	0.287	0.0102	
1 930	15	0.012	0.001	0.218	0.073	0.289	0.0106	
1 945	30	0.012	0.001	0.213	0.080	0.292	0.0103	
1 1000	45	0.007	0.002	0.210	0.080	0.289	0.0101	
1 1015	60	0.008	0.002	0.207	0.085	0.290	0.0101	
1 1030	75	0.008	0.002	0.204	0.085	0.287	0.0100	
1 1045	90	0.013	0.003	0.199	0.091	0.288	0.0103	
1 1100	105	0.012	0.002	0.196	0.092	0.287	0.0094	
1 1105	110	-----	-----	-----	-----	-----	-----	
1 1115	120	0.002	0.003	0.192	0.095	0.286	0.0098	

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1
1 826	-49	0.0005	0.0001	0.0001	1.32	0.004	0.005

----- NO DATA TAKEN

AD A147 786

ATMOSPHERIC PHOTOCHEMICAL MODELING OF TURBINE ENGINE
FUELS PHASE 1 EXPERI.. (U) CALIFORNIA UNIV RIVERSIDE
STATEWIDE AIR POLLUTION RESEARCH CE..

5/5

UNCLASSIFIED

W P CARTER ET AL. SEP 84

F/G 4/1

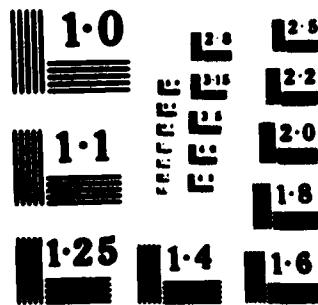
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9. **Mill**

135



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PAGE 2

UNC M R-1	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	PAN PPM ECD-1	HCHO PPM CA
---	-----	0.0003	0.0014	-----	-----	0.000	-----
025	0.030	-----	-----	-----	-----	-----	-----
---	-----	0.0104	0.0115	-0.0368	-----	-----	-----
069	0.285	-----	-----	-----	-----	-----	0.004
---	-----	-----	-----	-----	-----	-----	-----
070	0.287	0.0102	0.0112	-0.0255	-----	-----	-----
073	0.289	0.0106	0.0115	-0.0142	25.0	-----	-----
080	0.292	0.0103	0.0102	0.0749	25.2	-----	-----
080	0.289	0.0101	0.0094	0.1387	24.9	-----	-----
085	0.290	0.0101	0.0089	0.1965	25.3	-----	-----
085	0.287	0.0100	0.0081	0.2739	25.3	-----	-----
091	0.288	0.0103	0.0079	0.3306	25.2	-----	-----
092	0.287	0.0094	0.0068	0.4008	25.0	-----	0.006
---	-----	-----	-----	-----	-----	-----	-----
095	0.286	0.0098	0.0067	0.4558	24.9	-----	-----

HANE PM -1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1.32	0.004	0.005	0.0007	0.0043	0.0002	0.0022	0.0024

ITC-805
SYNTHETIC FUEL #1 - NOX
1984 MAY 4

0630: BEGIN WET FLUSH.
0835: STOP FLUSH. R.H. ~50% @ 80 F.
78 F DRY BULB
64 F WET BULB
0902: INJECTIONS: 3.4 ML NO
0.62 ML NO2
480 MICRO L SYNTHETIC FUEL #1 "STANDARD"
1015: 70X LIGHTS
1617: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.6	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.400	PPM
NO2-UNC	T 14B-1	0.117	PPM
N-C7	DB-5C-1	2.4428	PPM
MECYC-C6	DB-5C-1	1.7110	PPM
N-C8	DB-5C-1	2.2525	PPM
ETCYC-C6	DB-5C-1	0.2825	PPM
N-C14	DB-5C-1	0.9954	PPM
N-C14	SP C-II	0.2294	PPM
TOLUENE	DB-5C-1	1.0671	PPM
P-XYL	DB-5C-1	0.2288	PPM
135-TMB	DB-5C-1	0.2841	PPM
I-C3-BZ	DB-5C-1	0.1922	PPM
TETRALIN	DB-5C-1	0.4398	PPM
TETRALIN	SP C-II	0.3461	PPM

ITC-805
SYNTHETIC FUEL #1 - NOX
1984 MAY 4

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2702	SP C-II	RM-103; SUPERPAK-II; FID(TENAX)
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP; GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID

ITC-805
SYNTHETIC FUEL #1 - NOX
1984 MAY 4

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	N-C PPM DB-5
1 900	-75	0.012	0.000	0.006	0.024	0.025	-----	---
1 912	-63	-----	-----	-----	-----	-----	-----	1.
1 1000	-15	0.093	0.000	0.409	0.111	0.517	-----	---
1 1015	0	0.065	0.000	0.400	0.117	0.515	-----	---
1 1030	15	0.052	0.001	0.378	0.138	0.514	26.1	---
1 1045	30	0.042	0.001	0.343	0.171	0.511	25.3	---
1 1100	45	0.038	0.003	0.303	0.209	0.510	25.1	---
1 1115	60	0.031	0.005	0.257	0.251	0.506	25.1	---
1 1120	65	-----	-----	-----	-----	-----	-----	0.8
1 1130	75	0.025	0.009	0.207	0.299	0.504	25.1	---
1 1145	90	0.041	0.016	0.157	0.347	0.501	25.1	---
1 1200	105	0.052	0.031	0.109	0.390	0.496	25.1	---
1 1215	120	0.066	0.056	0.070	0.418	0.486	25.1	1.
1 1230	135	0.112	0.096	0.045	0.434	0.478	25.3	---
1 1245	150	0.173	0.150	0.031	0.436	0.465	25.4	---
1 1300	165	0.234	0.208	0.023	0.430	0.452	25.4	---
1 1315	180	0.301	0.274	0.019	0.423	0.440	25.6	1.
1 1330	195	0.378	0.341	0.016	0.411	0.426	25.8	---
1 1345	210	0.449	0.413	0.014	0.402	0.411	25.9	---
1 1400	225	0.513	0.481	0.014	0.386	0.395	25.9	---
1 1415	240	0.581	0.548	0.013	0.368	0.377	26.0	0.9
1 1430	255	0.640	0.615	0.013	0.348	0.358	26.0	---
1 1445	270	0.692	0.670	0.012	0.332	0.343	26.0	---
1 1500	285	0.732	0.712	0.013	0.317	0.328	26.0	---
1 1515	300	0.761	0.741	0.013	0.303	0.315	26.0	0.8
1 1530	315	0.779	0.761	0.013	0.292	0.304	25.9	---
1 1545	330	0.790	0.770	0.013	0.286	0.298	25.9	---
1 1600	345	0.791	0.772	0.013	0.278	0.290	25.8	---
1 1615	360	0.783	0.771	0.013	0.276	0.288	25.8	1.

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UNC M	NOX-UNC PPM	T DEG C	N-C6 PPM	CYC-C6 PPM	N-C7 PPM	MECYC-C6 PPM	N-C8 PPM
B-1	T 14R-1	ANA-TEMP	DB-5C-1	DB-5C-1	DB-5C-1	DB-5C-1	DB-5C-1
024	0.025	-----	-----	-----	-----	-----	-----
---	---	---	1.895	1.068	2.532	1.772	2.322
111	0.517	-----	-----	-----	-----	-----	-----
117	0.515	-----	-----D	-----D	2.443D	1.711D	2.253D
138	0.514	26.1	-----	-----	-----	-----	-----
171	0.511	25.3	-----	-----	-----	-----	-----
209	0.510	25.1	-----	-----	-----	-----	-----
251	0.506	25.1	-----	-----	-----	-----	-----
---	---	---	0.8755E	0.5503E	1.238E	0.9130E	1.190E
299	0.504	25.1	-----	-----	-----	-----	-----
347	0.501	25.1	-----	-----	-----	-----	-----
390	0.496	25.1	-----	-----	-----	-----	-----
418	0.486	25.1	1.139E	0.6808E	1.545E	1.117E	1.450E
434	0.478	25.3	-----	-----	-----	-----	-----
436	0.465	25.4	-----	-----	-----	-----	-----
430	0.452	25.4	-----	-----	-----	-----	-----
423	0.440	25.6	1.080E	0.6515E	1.483E	1.069E	1.394E
411	0.426	25.8	-----	-----	-----	-----	-----
402	0.411	25.9	-----	-----	-----	-----	-----
386	0.395	25.9	-----	-----	-----	-----	-----
368	0.377	26.0	0.9496E	0.5765E	1.302E	0.9427E	1.236E
348	0.358	26.0	-----	-----	-----	-----	-----
332	0.343	26.0	-----	-----	-----	-----	-----
317	0.328	26.0	-----	-----	-----	-----	-----
303	0.315	26.0	0.8207	0.5114	1.163	0.8461	1.117
292	0.304	25.9	-----	-----	-----	-----	-----
286	0.298	25.9	-----	-----	-----	-----	-----
278	0.290	25.8	-----	-----	-----	-----	-----
276	0.288	25.8	1.131E	0.6643E	1.506E	1.065E	1.391E

ITC-805
SYNTHETIC FUEL #1 - NOX
1984 MAY 4

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ETCYC-C6 PPM DB-5C-1	N-C14 PPM DB-5C-1	N-C14 PPM SP C-II	TOLUENE PPM DB-5C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3- PPM DB-5C-
1 841	-94	-----	-----	0.0000	-----	-----	-----	-----
1 912	-63	0.2922	0.7561	-----A	1.091	0.2351	0.2886	0.19
1 933	-42	-----	-----	0.2223	-----	-----	-----	-----
1 1015	0	0.2825D	0.9954D	0.2294B	1.067D	0.2288D	0.2841D	0.19
1 1115	60	-----	-----	0.2069	-----	-----	-----	-----
1 1120	65	0.1584E	0.6035E	-----	0.6040E	0.1307E	0.1682E	0.11
1 1215	120	0.1885E	0.5974E	0.2006	0.7172E	0.1535E	0.1745E	0.13
1 1315	180	0.1810E	0.6451E	0.1912	0.6924E	0.1474E	0.1573E	0.12
1 1415	240	0.1600E	0.5794E	0.1900	0.6228E	0.1310E	0.1304E	0.11
1 1515	300	0.1452	0.5192	0.1844	0.5706	0.1195	0.1101	0.10
1 1615	360	0.1762E	0.5937E	0.1678	0.6906E	0.1420E	0.1250E	0.12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	2,3-DMN PPM SP C-II	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0. M.VOL ECD-
1 841	-94	0.0000	0.000	-----	0.0009	0.0001	0.0001	0.0
1 912	-63	-----A	-----	-----	-----	-----	-----	-----
1 920	-55	-----	-----	0.053	-----	-----	-----	-----
1 933	-42	0.0963	-----	-----	-----	-----	-----	-----
1 1015	0	0.0893B	0.000	-----	-----	-----	-----	0.0
1 1115	60	0.0838	-----	0.012	-----	-----	-----	-----
1 1120	65	-----	0.000	-----	-----	-----	-----	0.0
1 1215	120	0.0725	0.003	0.024	-----	-----	-----	0.2
1 1315	180	0.0589	0.009	-----	-----	-----	-----	0.4
1 1415	240	0.0510	0.018	0.046	-----	-----	-----	0.6
1 1515	300	0.0388	0.025	0.053	-----	-----	-----	0.7
1 1605	350	-----	-----	0.059	-----	-----	-----	-----
1 1615	360	0.0289	0.032	-----	-----	-----	-----	0.7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	I-C4 PPM DMS-1	ETHENE PPM PM-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PM-1
1 841	-94	0.0008	0.0038	0.0014	0.0002	0.0032	0.0030

----- NO DATA TAKEN

27-JUL-84
PAGE 4

ENE M C-1	P-XYL PPM DB-5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	NAPHTHAL PPM SP C-II	TETRALIN PPM DB-5C-1	TETRALIN PPM SP C-II	2-MENAPH PPM SP C-II
091	0.2351	0.2886	0.1965	0.0000 -----A 0.2504	0.4223 -----A 0.3432	0.0000 -----A 0.2755	
067D	0.2288D	0.2841D	0.1922D	0.2538B 0.2282	0.4398D 0.3059	0.3461B 0.2820	-----C
040E	0.1307E	0.1682E	0.1116E	0.2352	0.2551E	0.3063	0.2367
172E	0.1535E	0.1745E	0.1305E	0.2164	0.2927E	0.2868	-----C
924E	0.1474E	0.1573E	0.1265E	0.2095	0.2698E	0.2856	0.2028
228E	0.1310E	0.1304E	0.1144E	0.2118	0.2395E	0.2741	0.1699
706	0.1195	0.1101	0.1053	0.2059	0.2049	0.2377	0.1549
906E	0.1420E	0.1250E	0.1255E				

ALD M -600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1
0009	0.0001	0.0001	0.000	1.36	0.004	0.005	0.0004
			0.000				
			0.000				
			0.288				
			0.439				
			0.624				
			0.736				
			0.768				

4= M 3-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
0002	0.0032	0.0030

ITC-805
SYNTHETIC FUEL #1 - NOX
1984 MAY 4

NOTES

- A PEAKS UNUSUALLY BROAD. FOUND TENAX TUBE WAS PUSHED TOO CLOSE TO COLUMN DURING THE G.C. ANALYSES SO THE CONNECTION WAS NOT LEAK-PROOF.
- B PEAKS SLIGHTLY BROAD BUT ANALYSIS SEEMS O.K. OTHERWISE, I.E. AREAS LOOK REASONABLE COMPARED TO PRIOR PRE T=0 SAMPLE.
- C 2-METHYLNAPHTHALENE NOT WELL ENOUGH RESOLVED FROM N-C14 TO GET WIDTH AT HALF HEIGHT--HENCE NO AREA GIVEN FOR 2-MENAPH AT THIS SAMPLE TIME.
- D TEMPERATURE PROGRAMMER MALFUNCTIONED--REPLACED MISSED N-C6 AND CYC-C6.
- E FLAME EXTINGUISHED DURING EARLY PORTION OF CHROMATOGRAM AND RELIT.

ITC-806
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MAY 7

MAY 6, 1984

1730: STOP FLUSH. BEGIN 2-3 DIMENAPHTHALENE TUBE FLUSH 2 L/MIN.
75 F DRY BULB
65 F WET BULB

MAY 7, 1984

0817: STOP TUBE FLUSH.

0853: INJECTIONS: 1.8 ML NO
0.31 ML NO2

0930: 70% LIGHTS

1535: DUMP BAG. FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 930 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.6	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.242	PPM
NO2-UNC	T 14B-1	0.089	PPM
2,3-DMN	SP C-II	0.4892	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
2702	SP C-II	RM-103; SUPERPAK-III FID(TENAX)
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID

ITC-806
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MAY 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	2,3-DMN PPM SP C-II	T DEG ANA-TEI
1 830	-60	0.186	-----	0.003	0.042	0.045	0.4491	-----
1 903	-27	-----	-----	-----	-----	-----	0.4955	-----
1 913	-	-----	-----	-----	-----	-----	-----	-----
1 915	-15	0.241	0.000	0.243	0.087	0.328	-----	-----
1 930	0	0.207	0.000	0.242	0.089	0.329	0.4892	-----
1 945	15	0.176	0.002	0.220	0.108	0.327	-----	26
1 1000	30	0.149	0.003	0.189	0.132	0.319	-----	24
1 1015	45	0.127	0.008	0.154	0.162	0.315	-----	24
1 1030	60	0.040	0.013	0.095	0.205	0.299	0.4051	24
1 1045	75	0.122	0.027	0.081	0.219	0.299	-----	24
1 1100	90	0.125	0.047	0.054	0.234	0.287	-----	24
1 1115	105	0.151	0.077	0.037	0.239	0.275	-----	24
1 1130	120	0.179	0.109	0.028	0.233	0.260	0.2923	24
1 1145	135	0.195	0.143	0.022	0.226	0.246	-----	24
1 1200	150	0.222	0.175	0.017	0.217	0.234	-----	24
1 1215	165	0.242	0.206	0.016	0.205	0.219	-----	24
1 1230	180	0.255	0.237	0.013	0.193	0.205	0.1698	24
1 1245	195	0.273	0.264	0.012	0.182	0.194	-----	24
1 1300	210	0.285	0.288	0.011	0.174	0.184	-----	24
1 1315	225	0.302	0.310	0.011	0.167	0.178	-----	24
1 1330	240	0.311	0.328	0.011	0.161	0.171	0.0602	24
1 1345	255	0.321	0.340	0.011	0.159	0.169	-----	24
1 1400	270	0.330	0.349	0.011	0.154	0.164	-----	24
1 1415	285	0.330	0.351	0.012	0.152	0.163	-----	24
1 1430	300	0.339	0.356	0.012	0.150	0.161	0.0218	24
1 1445	315	0.335	0.356	0.012	0.148	0.159	-----	24
1 1500	330	0.341	0.353	0.012	0.147	0.159	-----	24
1 1515	345	0.347	0.358	0.013	0.148	0.160	-----	24
1 1530	360	0.351	0.360	0.013	0.149	0.162	0.0113	24

27-JUL-84
PAGE 2

UNC M R-1	NOX-UNC PPM T 14R-1	2,3-DMN PPM SF C-II	T DEG C ANA-TEMP	FAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
042	0.045	0.4491	-----	0.000	-----	0.0008	0.0000
	-----	0.4955	-----	-----	-----	-----	-----
	-----	-----	-----	-----	0.026	-----	-----
087	0.328	-----	-----	-----	-----	-----	-----
089	0.329	0.4892	-----	0.000	-----	-----	-----
108	0.327	-----	26.0	-----	-----	-----	-----
132	0.319	-----	24.9	-----	-----	-----	-----
162	0.315	-----	24.7	-----	-----	-----	-----
205	0.299	0.4051	24.7	0.000	0.040	0.0068	0.0004
219	0.299	-----	24.7	-----	-----	-----	-----
234	0.287	-----	24.6	-----	-----	-----	-----
239	0.275	-----	24.6	-----	-----	-----	-----
233	0.260	0.2923	24.6	0.005	0.036	0.0035	0.0000
226	0.246	-----	24.5	-----	-----	-----	-----
217	0.234	-----	24.5	-----	-----	-----	-----
205	0.219	-----	24.5	-----	-----	-----	-----
193	0.205	0.1698	24.4	0.014	0.051	0.0049	0.0000
182	0.194	-----	24.4	-----	-----	-----	-----
174	0.184	-----	24.4	-----	-----	-----	-----
167	0.178	-----	24.4	-----	-----	-----	-----
161	0.171	0.0602	24.5	0.023	0.065	-----	-----
159	0.169	-----	24.6	-----	-----	-----	-----
154	0.164	-----	24.5	-----	-----	-----	-----
152	0.163	-----	24.4	-----	-----	-----	-----
150	0.161	0.0218	24.4	0.030	0.071	-----	-----
148	0.159	-----	24.5	-----	-----	-----	-----
147	0.159	-----	24.6	-----	-----	-----	-----
148	0.160	-----	24.6	-----	-----	-----	-----
149	0.162	0.0113	24.6	0.029	0.083	0.0100	-----

ITC-806
2,3-DIMETHYLNAPHTHALENE - NOX
1984 MAY 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MEK PPM 10'C-600	RT=0.8' M.VOLTS ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C PPM DMS
1 830	-60	0.0003	0.0000	1.02	0.003	0.006	0.0004	0.0
1 930	0	-----	0.0000	-----	-----	-----	-----	---
1 1030	60	0.0014	1.632	-----	-----	-----	-----	---
1 1130	120	0.0007	4.032	-----	-----	-----	-----	---
1 1230	180	0.0006	6.368	-----	-----	-----	-----	---
1 1330	240	-----	7.488	-----	-----	-----	-----	---
1 1430	300	-----	7.232	-----	-----	-----	-----	---
1 1530	360	0.0021	6.208	-----	-----	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1 830	-60	0.0017	0.0013

----- NO DATA TAKEN

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PAGE 3

ANE PM -1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PM-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1
0.003	0.006	0.0004	0.0011	0.0021	0.0015	0.0003
-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----
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-----	-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----	-----

ITC-807
SYNTHETIC FUEL #1 + PYRROLE - NOX
1984 MAY 9

0630: BEGIN WET FLUSH.
0823: STOP FLUSH. R.H. 48% @ 80 F.
65 F WET BULB
77.5 F DRY BULB
0907: INJECTIONS: 3.4 ML NO
0.62 ML NO2
480 MICRO L SYNTHETIC FUEL #1 "STANDARD"
3.6 MICRO L PYRROLE (VAPOR TRANSFERRED)
1015: 70% LIGHTS
1536: LIGHTS OFF. DUMP BAG. FLUSH 3 HOURS WITH LIGHTS,
2 HOURS WITHOUT LIGHTS.

T=0 AT 1015 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.8	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.345	PPM
NO2-UNC	T 14B-1	0.138	PPM
PYRROLE	SP C-20M	0.1872	PPM
N-C6	DB-5C-1	1.4562	PPM
CYC-C6	DB-5C-1	0.8484	PPM
N-C7	DB-5C-1	1.9638	PPM
MECYC-C6	DB-5C-1	1.4017	PPM
N-C8	DB-5C-1	1.8180	PPM
ETCYC-C6	DB-5C-1	0.2325	PPM
TOLUENE	DB-5C-1	0.8800	PPM
P-XYL	DB-5C-1	0.1881	PPM
135-TMB	DB-5C-1	0.2293	PPM
I-C3-BZ	DB-5C-1	0.1569	PPM
TETRALIN	DB-5C-1	0.3600	PPM

ITC-807
SYNTHETIC FUEL #1 + PYRROLE - NOX
1984 MAY 9

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	M03-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2701	SP C-20M	RM-103; C20M/KOH SUPERPAK; FID(TENAX)
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2850	DB-5C-1	RM-121; 30 M DB-5 QUARTZ CAP; GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RM-121; POROPAK-N GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PYRI PPH SP C-
1 830	-105	-----	-----	-----	-----	-----	-----	0.0
1 900	-75	0.010	0.001	0.007	0.047	0.053	-----	---
1 913	-62	-----	-----	-----	-----	-----	-----	---
1 915	-60	-----	-----	-----	-----	-----	-----	0.0
1 940	-35	-----	-----	-----	-----	-----	-----	0.0
1 1000	-15	0.096	0.000	0.351	0.131	0.479	-----	---
1 1015	0	0.074	0.001	0.345	0.138	0.481	-----	0.0
1 1030	15	0.060	0.003	0.276	0.198	0.472	25.2	---
1 1045	30	0.052	0.013	0.178	0.282	0.458	24.5	---
1 1100	45	0.101	0.059	0.085	0.348	0.431	24.5	---
1 1115	60	0.252	0.176	0.048	0.334	0.380	25.8	0.0
1 1130	75	0.401	0.278	0.035	0.273	0.307	25.7	---
1 1145	90	0.492	0.350	0.029	0.235	0.262	25.7	0.0
1 1200	105	0.551	0.411	0.026	0.219	0.244	25.8	---
1 1215	120	0.594	0.452	0.024	0.210	0.233	25.8	---
1 1230	135	0.618	0.479	0.022	0.203	0.224	25.9	---
1 1245	150	0.630	0.504	0.021	0.198	0.218	26.0	---
1 1300	165	0.638	0.514	0.020	0.195	0.214	26.0	---
1 1315	180	0.641	0.519	0.020	0.194	0.213	26.2	---
1 1330	195	0.640	0.523	0.019	0.185	0.203	26.4	---
1 1345	210	0.631	0.522	0.019	0.183	0.201	26.6	---
1 1400	225	0.623	0.519	0.017	0.178	0.195	26.3	---
1 1415	240	0.613	0.512	0.017	0.182	0.198	26.4	---
1 1430	255	0.611	0.509	0.018	0.192	0.209	26.3	---
1 1445	270	0.601	0.504	0.017	0.185	0.201	25.9	---
1 1500	285	0.585	0.500	0.016	0.180	0.196	25.8	---
1 1515	300	0.576	0.498	0.016	0.180	0.196	25.5	---

----- NO DATA TAKEN

UNC M R-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PYRROLE PPM SP C-20M	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1
---	---	---	0.0000	---	---	---	---
047	0.053	---	---	1.432	0.8374	1.940	1.386
---	---	---	0.1845	---	---	---	---
---	---	---	0.1818	---	---	---	---
131	0.479	---	---	---	---	---	---
138	0.481	---	0.1872	1.456A	0.8484A	1.964A	1.402A
198	0.472	25.2	---	---	---	---	---
282	0.458	24.5	---	---	---	---	---
348	0.431	24.5	---	---	---	---	---
334	0.380	25.8	0.0549	1.171A	0.6907A	1.576A	1.135A
273	0.307	25.7	---	---	---	---	---
235	0.262	25.7	0.0023	---	---	---	---
219	0.244	25.8	---	---	---	---	---
210	0.233	25.8	---	1.423A	0.8105A	1.885A	1.324A
203	0.224	25.9	---	---	---	---	---
198	0.218	26.0	---	---	---	---	---
195	0.214	26.0	---	---	---	---	---
194	0.213	26.2	---	1.316A	0.7283A	1.528A	1.055A
185	0.203	26.4	---	---	---	---	---
183	0.201	26.6	---	---	---	---	---
178	0.195	26.3	---	---	---	---	---
182	0.198	26.4	---	---	---	---	---
192	0.209	26.3	---	---	---	---	---
185	0.201	25.9	---	---	---	---	---
180	0.196	25.8	---	---	---	---	---
180	0.196	25.5	---	---	---	---	---

ITC-807
SYNTHETIC FUEL #1 + PYRROLE - NOX
1984 MAY 9

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	T DEG C ANA-TEMP	PYRR PF SP C-
1 1530	315	0.574	0.489	0.016	0.183	0.198	25.3	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C8 PPH DB-5C-1	ETCYC-C6 PPH DB-5C-1	TOLUENE PPH DB-5C-1	P-XYL PPH DB-5C-1	135-TMB PPH DB-5C-1	I-C3-BZ PPH DB-5C-1	TETRA PF DB-5
1 829	-106	-----	-----	-----	-----	-----	-----	---
1 913	-62	1.796	0.2298	0.8746	0.1863	0.2252	0.1555	0.1
1 922	-53	-----	-----	-----	-----	-----	-----	---
1 1015	0	1.818A	0.2325A	0.8800A	0.1881A	0.2293A	0.1569A	0.1
1 1115	60	1.472A	0.1907A	0.7317A	0.1551A	0.1701A	0.1322A	0.1
1 1215	120	1.729A	0.2164A	0.8395A	0.1754A	0.1726A	0.1520A	0.1
1 1315	180	1.183A	0.1447A	0.6375A	0.1185A	0.1079A	0.1013A	0.1
1 1415	240	1.405A	0.1777A	0.8374A	0.1441A	0.1307A	0.1275A	0.1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETONE PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	N-C4 PPH DMS-1	I-C4 PPH DMS-1	ETHE PF PN-
1 829	-106	0.0001	1.34	0.004	0.006	0.0003	0.0009	0.0

----- NO DATA TAKEN

NOTES

A FLAME EXTINGUISHED AND RELIT DURING EARLY PORTION OF CHROMATOGRAM.
B MISSED PEAKS--FLAME OUT.

27-JUL-84
PAGE 3

UNC PM DB-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PYRROLE PPM SP C-20M	N-C6 PPM DB-5C-1	CYC-C6 PPM DB-5C-1	N-C7 PPM DB-5C-1	MECYC-C6 PPM DB-5C-1
183	0.198	25.3	-----	-----	-----	-----	-----
YL PM 5C-1	135-TMB PPM DB-5C-1	I-C3-BZ PPM DB-5C-1	TETRALIN PPM DB-5C-1	PAN PPM ECD-1	HCHO PPM CA	RT=0.8' M.VOLTS ECD-1	ACETALD PPM 10'C-600
1863	0.2252	0.1555	0.3147	0.000	0.014	0.000	0.0004
1881A	0.2293A	0.1569A	0.3600A	0.000	0.000	0.000	-----
1551A	0.1701A	0.1322A	0.2905A	0.005	0.044	0.464	-----
1754A	0.1726A	0.1520A	0.3098A	0.015	0.040	0.688	-----
1185A	0.1079A	0.1013A	0.2431A	0.025	0.097	0.768	-----
1441A	0.1307A	0.1275A	0.1711A	0.027	0.097	0.816	-----
PANE PM S-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1006	0.0003	0.0009	0.0032	0.0014	0.0002	0.0037	0.0035

PORTION OF CHROMATOGRAM.

ITC-808
NOX-AIR IRRADIATION
1984 MAY 10

0630: START FLUSH.
0837: STOP FLUSH. 79 F DRY BULB
65 F WET BULB
0906: INJECTIONS: 3.5 ML NO
0.62 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0930: 70% LIGHTS
1130: RUN OVER.

T=0 AT 930 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.0	0.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.325	PPM
NO2-UNC	T 14B-1	0.131	PPM
N-C4	DMS-1	0.0092	PPM
PROPENE	DMS-1	0.0098	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PM-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SM1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	MO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-808
NOX-AIR IRRADIATION
1984 MAY 10

CLOCK TIME DAY HR	ELAPSED TIME (IN)	OZONE PPH D-3378	OZONE PPH M03-8410	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	N-C4 PPH DMS-1	PROPE PPH DMS-
1 838	-52	-----	-----	-----	-----	-----	0.0004	0.00
1 900	-30	0.002	0.000	0.010	0.064	0.074	-----	-----
1 909	-21	-----	-----	-----	-----	-----	0.0088	0.00
1 915	-15	0.001	0.000	0.325	0.142	0.464	-----	-----
1 930	0	0.001	0.001	0.325	0.131	0.453	0.0092	0.00
1 945	15	0.001	0.001	0.318	0.117	0.431	0.0090	0.00
1 1000	30	0.001	0.001	0.317	0.109	0.423	0.0091	0.00
1 1015	45	0.001	0.001	0.315	0.131	0.444	0.0088	0.00
1 1030	60	0.001	0.001	0.310	0.142	0.449	0.0092	0.00
1 1045	75	0.001	0.000	0.308	0.136	0.441	0.0091	0.00
1 1100	90	0.001	0.001	0.304	0.135	0.437	0.0088	0.00
1 1115	105	0.001	0.002	0.301	0.138	0.436	0.0090	0.00
1 1120	110	-----	-----	-----	-----	-----	-----	-----
1 1130	120	0.001	0.001	0.297	0.136	0.430	0.0088	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHEN PPH PN-1
1 838	-52	0.0004	0.0001	1.55	0.005	0.005	0.0008	0.00

----- NO DATA TAKEN

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PAGE 2

NC	NOX-UNC PPH T 14B-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3=	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA
--	-----	0.0004	0.0012	-----	-----	0.000	-----
64	0.074	-----	-----	-----	-----	-----	-----
--	-----	0.0088	0.0092	0.0201	-----	-----	-----
42	0.464	-----	-----	-----	-----	-----	0.012
31	0.453	0.0092	0.0098	0.0096	-----	-----	-----
17	0.431	0.0090	0.0091	0.0588	24.7	-----	-----
09	0.423	0.0091	0.0094	0.0393	24.0	-----	-----
31	0.444	0.0088	0.0085	0.1069	25.3	-----	-----
42	0.449	0.0092	0.0086	0.1315	25.2	-----	-----
36	0.441	0.0091	0.0084	0.1478	25.2	-----	-----
35	0.437	0.0088	0.0076	0.2132	25.1	-----	-----
38	0.436	0.0090	0.0076	0.2256	25.2	-----	-----
--	-----	-----	-----	-----	-----	-----	0.000
36	0.430	0.0088	0.0072	0.2675	25.2	-----	-----

E	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH PN-1	ACETYLEN PPH DMS-1
05	0.005	0.0008	0.0055	0.0002	0.0050	0.0050

ITC-810
PROPENE - NOX
1984 MAY 11

0630: START WET FLUSH.
0832: STOP FLUSH. R.H. ~48% @ 80 F.
76 F DRY BULB
65 F WET BULB
0852: INJECTIONS: 6.4 ML PROPENE
3.6 ML NO
0.62 ML NO2

0915: 70X LIGHTS
1540: DUMP BAG. FLUSH 2 HOURS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.5	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.401	PPM
NO2-UNC	T 14B-1	0.118	PPM
PROPENE	DMS-1	0.927	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
2100	PN-1	RM-121; POROPAK-N GC; FID
2200	DMS-1	RM-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RM-121; 10' 10% CARBOWAX-600 GC; FID
2000	ECD-1	RM-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-810
PROPENE - NOX
1984 MAY 11

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	OZONE PPM M03-8410	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PROPE PPM DMS-
1 830	-45	-----	-----	-----	-----	-----	-----	0.0
1 845	-30	0.012	0.000	0.007	0.027	0.028	-----	-----
1 855	-20	-----	-----	-----	-----	-----	-----	0.8
1 900	-15	0.014	0.000	0.400	0.115	0.511	-----	-----
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.009	0.000	0.401	0.118	0.515	-----	0.9
1 930	15	0.014	0.001	0.351	0.170	0.516	25.7	-----
1 945	30	0.014	0.003	0.296	0.224	0.516	25.9	-----
1 1000	45	0.013	0.007	0.240	0.277	0.513	25.9	-----
1 1015	60	0.015	0.011	0.185	0.327	0.508	25.3	0.7
1 1025	70	-----	-----	-----	-----	-----	-----	-----
1 1030	75	0.023	0.023	0.132	0.373	0.501	25.1	-----
1 1045	90	0.036	0.043	0.088	0.406	0.491	25.1	-----
1 1100	105	0.072	0.082	0.055	0.435	0.482	25.3	-----
1 1115	120	0.132	0.140	0.033	0.441	0.469	25.9	0.5
1 1130	135	0.204	0.215	0.023	0.436	0.455	25.8	-----
1 1145	150	0.277	0.296	0.017	0.424	0.439	25.6	-----
1 1200	165	0.347	0.371	0.014	0.413	0.425	25.6	-----
1 1215	180	0.415	0.442	0.013	0.399	0.410	25.6	0.2
1 1230	195	0.479	0.505	0.012	0.387	0.397	25.6	-----
1 1245	210	0.531	0.554	0.012	0.382	0.387	25.6	-----
1 1300	225	0.572	0.599	0.011	0.370	0.375	25.4	-----
1 1315	240	0.604	0.637	0.011	0.359	0.368	25.1	0.0
1 1330	255	0.637	0.669	0.010	0.351	0.359	25.2	-----
1 1345	270	0.670	0.700	0.010	0.343	0.352	25.3	-----
1 1400	285	0.692	0.729	0.010	0.338	0.346	25.4	-----
1 1415	300	0.712	0.749	0.010	0.333	0.342	25.5	0.0
1 1430	315	0.726	0.763	0.009	0.328	0.336	25.6	-----
1 1445	330	0.752	0.782	0.009	0.325	0.333	25.6	-----
1 1500	345	0.761	0.801	0.009	0.324	0.332	25.6	-----
1 1505	350	-----	-----	-----	-----	-----	-----	-----
1 1515	360	0.774	0.816	0.009	0.324	0.332	25.6	-----
1 1530	375	0.782	0.827	0.010	0.322	0.331	25.6	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HEX PPM 10'C-600	METHANE PPM PM-1	ETHANE PPM PM-1	PROPANE PPM DMS-1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHEN PPM PM-1
1 830	-45	0.0000	1.47	0.007	0.004	0.0004	0.0008	0.00
1 915	0	0.0000	-----	-----	-----	-----	-----	-----

----- NO DATA TAKEN

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PAGE 2

UNC M B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	PROPENE PPM DMS-1	PAN PPM ECD-1	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
---	-----	-----	0.001	0.000	-----	0.0000	0.0000
027	0.028	-----	-----	-----	-----	-----	-----
---	-----	-----	0.896	-----	-----	-----	-----
115	0.511	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	0.010	-----	-----
118	0.515	-----	0.927	0.000	-----	0.0000	0.0000
170	0.516	25.7	-----	-----	-----	-----	-----
224	0.516	25.9	-----	-----	-----	-----	-----
277	0.513	25.9	-----	-----	-----	-----	-----
327	0.508	25.3	0.798	0.001	0.119	-----	-----
---	-----	-----	-----	-----	-----	0.0921	-----
373	0.501	25.1	-----	-----	-----	-----	-----
406	0.491	25.1	-----	-----	-----	-----	-----
435	0.482	25.3	-----	-----	-----	-----	-----
441	0.469	25.9	0.541	0.011	0.241	0.1001	-----
436	0.455	25.8	-----	-----	-----	-----	-----
424	0.439	25.6	-----	-----	-----	-----	-----
413	0.425	25.6	-----	-----	-----	-----	-----
399	0.410	25.6	0.224	0.039	0.374	0.1741	-----
387	0.397	25.6	-----	-----	-----	-----	-----
382	0.387	25.6	-----	-----	-----	-----	-----
370	0.375	25.4	-----	-----	-----	-----	-----
359	0.368	25.1	0.099	-----	0.447	0.1661	-----
351	0.359	25.2	-----	0.100	-----	-----	-----
343	0.352	25.3	-----	-----	-----	-----	-----
338	0.346	25.4	-----	-----	-----	-----	-----
333	0.342	25.5	0.030	0.140	0.429	0.1640	-----
328	0.336	25.6	-----	-----	-----	-----	-----
325	0.333	25.6	-----	-----	-----	-----	-----
324	0.332	25.6	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	0.338	-----	-----
324	0.332	25.6	-----	0.140	-----	0.1390	-----
322	0.331	25.6	-----	-----	-----	-----	-----

ANE M -1	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4- PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
004	0.0004	0.0008	0.0050	0.0002	0.0021	0.0022
---	-----	-----	-----	-----	-----	-----

ITC-814
NOX-AIR IRRADIATION
1984 MAY 21

1210: STOP FLUSH. R.H. ~48% @ 80 F.
80 F DRY BULB
66 F WET BULB
1311: TECO 1510 AND DASIBI 3378 ON ITC.
1354: INJECTIONS: 3.6 ML NO
0.064 ML PROPENE
0.064 ML N-BUTANE
0.62 ML NO2

1415: 70% LIGHTS
1615: RUN OVER.

T=0 AT 1415 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	26.7	0.7	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.425	PPH
N-C4	DMS-1	0.0097	PPH
PROPENE	DMS-1	0.0101	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
2200	DMS-1	RH-1211 DIMETHYLSULFOLANE GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-814
NOX-AIR IRRADIATION
1984 MAY 21

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNCA
1 1323	-52	-----	-----	-----	-----	0.0003	0.0010	---
1 1345	-30	0.006	0.006	0.010	0.015	-----	-----	---
1 1354	-21	-----	-----	-----	-----	0.0097	0.0101	0.
1 1400	-15	0.006	0.422	0.098	0.518	-----	-----	---
1 1410	-5	-----	-----	-----	-----	-----	-----	---
1 1415	0	0.013	0.425	0.101	0.522	0.0097	0.0101	0.
1 1430	15	0.006	0.422	0.103	0.523	0.0096	0.0095	0.
1 1445	30	0.006	0.424	0.105	0.525	0.0096	0.0091	0.
1 1500	45	0.012	0.421	0.109	0.527	0.0099	0.0088	0.
1 1515	60	0.007	0.418	0.110	0.525	0.0097	0.0085	0.
1 1530	75	0.013	0.418	0.108	0.524	0.0097	0.0083	0.
1 1545	90	0.012	0.415	0.108	0.521	0.0095	0.0078	0.
1 1600	105	0.006	0.414	0.113	0.525	0.0095	0.0077	0.
1 1605	110	-----	-----	-----	-----	-----	-----	---
1 1615	120	0.006	0.411	0.113	0.522	0.0092	0.0072	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MEK PPM 10'C-600	PAN PPM ECD-1	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHI PPM PN
1 1323	-52	0.0000	0.000	1.45	0.006	0.005	0.0008	0.

----- NO DATA TAKEN

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INC	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
---	0.0003	0.0010	-----	-----	-----	0.0000	0.0003
015	-----	-----	-----	-----	-----	-----	-----
---	0.0097	0.0101	0.0315	-----	-----	-----	-----
518	-----	-----	-----	-----	0.012	-----	-----
---	-----	-----	-----	-----	-----	-----	-----
522	0.0097	0.0101	0.0315	-----	-----	-----	-----
523	0.0096	0.0095	0.0788	26.3	-----	-----	-----
525	0.0096	0.0091	0.1196	26.6	-----	-----	-----
527	0.0099	0.0088	0.1854	26.9	-----	-----	-----
525	0.0097	0.0085	0.1943	26.9	-----	-----	-----
524	0.0097	0.0083	0.2206	27.5	-----	-----	-----
521	0.0095	0.0078	0.2593	27.5	-----	-----	-----
525	0.0095	0.0077	0.2798	26.3	-----	-----	-----
---	-----	-----	-----	-----	0.010	-----	-----
522	0.0092	0.0072	0.3093	25.5	-----	-----	-----

NE	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4=	ACETYLEN	ACETYLEN
M				PPM DMS-1	PPM DMS-1	PPM PN-1
1						
006	0.005	0.0008	0.0033	0.0002	0.0026	0.0029

ITC-822
OZONE DECAY
1984 MAY 30-31

0630: BEGIN FLUSH.
0830: STOP FLUSH. R.H. ~50%
0832: PEN RAD. SOURCE ON 28 MINUTES.
TIME D-3378
0915 .517 PPM
1200 .402 PPM
1215: DASIBI FLOW DISCOVERED TO BE LOW. FLOW RESET TO ~640 ML/MIN.
TIME D-3378
1221 1.808 PPM
1347 1.795 PPM
1534 1.782 PPM
1648 1.769 PPM

TIMER SET FOR 3 HOUR FLUSH WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 0 PDT

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	22.3	0.6	DEG C

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR SN1223790

ITC-822
OZONE DECAY
1984 MAY 30-31

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	T DEG C ANA-TEMP
1 1230	0	1.811	21.9
1 1245	15	1.809	21.8
1 1300	30	1.808	21.8
1 1315	45	1.802	21.9
1 1330	60	1.794	22.0
1 1345	75	1.800	22.0
1 1400	90	1.799	22.0
1 1415	105	1.793	22.0
1 1430	120	1.785	21.9
1 1445	135	1.784	22.0
1 1500	150	1.784	22.1
1 1515	165	1.783	22.1
1 1530	180	1.782	22.2
1 1545	195	1.780	22.6
1 1600	210	1.781	22.5
1 1615	225	1.779	22.8
1 1630	240	1.771	23.0
1 1645	255	1.764	23.2
1 1700	270	1.771	23.3
1 1715	285	1.768	23.4
1 1730	300	1.763	23.5
1 1745	315	1.761	23.4
1 1815	345	1.763	22.3
1 1845	375	1.761	21.8
1 1915	405	1.754	21.7
1 1945	435	1.760	21.7
1 2015	465	1.750	21.6
1 2045	495	1.748	21.6
1 2115	525	1.740	21.7
1 2145	555	1.731	21.8
1 2215	585	1.761	22.0

----- NO DATA TAKEN

ITC-824
NOX - AIR IRRADIATION
1984 JUNE 1

0630: FLUSH ON.
0816: STOP FLUSH. R.H. ~50% @ 80 F.
0847: INJECTIONS: 3.6 ML NO
 0.62 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE

0915: 70% LIGHTS
1116: INJECTION: 7.3 MICRO L ACETALDEHYDE
1130: RUN ABORTED.
1145: DUMPED BAG.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	23.7	0.3	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.331	PPM
NO2-UNC	T 14B-1	0.071	PPM
N-C4	DMS-1	0.0095	PPM
PROPENE	DMS-1	0.0099	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RH-1211 DINETHYLSULFOLANE GC1 FID
2100	PN-1	RH-1211 POROPAK-N GC1 FID
2000	ECD-1	RH-1211 12' 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RH-1211 10' 10% CARBOWAX-600 GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-824
NOX - AIR IRRADIATION
1984 JUNE 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4
1 820	-55	-----	-----	-----	-----	0.0003	0.0008	---
1 845	-30	0.002	0.007	0.006	0.015	-----	-----	---
1 854	-21	-----	-----	-----	-----	0.0097	0.0103	0.
1 900	-15	0.001	0.330	0.070	0.399	-----	-----	---
1 915	0	0.001	0.331	0.071	0.402	0.0095	0.0099	0.
1 930	15	0.002	0.331	0.073	0.403	0.0096	0.0098	0.
1 945	30	0.002	0.327	0.073	0.400	0.0097	0.0096	0.
1 1000	45	0.007	0.328	0.075	0.402	0.0098	0.0094	0.
1 1015	60	0.007	0.324	0.076	0.399	0.0095	0.0089	0.
1 1030	75	0.002	0.327	0.076	0.403	0.0094	0.0085	0.
1 1045	90	0.002	0.326	0.077	0.402	0.0096	0.0084	0.
1 1100	105	0.007	0.324	0.078	0.401	0.0096	0.0081	0.
1 1115	120	0.002	0.321	0.078	0.398	0.0096	0.0079	0.

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	MEK PPH 10'C-600	PAN PPH ECD-1	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHI PI PN
1 820	-55	0.0000	0.000	1.35	0.005	0.004	0.0009	0.

----- NO DATA TAKEN

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PAGE 2

UNC M B-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600
---	0.0003	0.0008	-----	-----	-----	0.0000	0.0000
015	-----	-----	-----	-----	-----	-----	-----
---	0.0097	0.0103	0.0117	-----	-----	-----	-----
399	-----	-----	-----	-----	0.004	-----	-----
402	0.0095	0.0099	0.0201	-----	-----	-----	-----
403	0.0096	0.0098	0.0480	24.4	-----	-----	-----
400	0.0097	0.0096	0.0752	23.6	-----	-----	-----
402	0.0098	0.0094	0.1001	23.4	-----	-----	-----
399	0.0095	0.0089	0.1381	23.5	0.006	-----	-----
403	0.0094	0.0085	0.1698	23.5	-----	-----	-----
402	0.0096	0.0084	0.2027	23.6	-----	-----	-----
401	0.0096	0.0081	0.2304	23.8	-----	-----	-----
398	0.0096	0.0079	0.2592	23.9	0.000	-----	-----

ANE PM -1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PM-1	I-C4= PPM DMS-1	ACETYLEN PPM PM-1	ACETYLEN PPM DMS-1
0.005	0.004	0.0009	0.0029	0.0002	0.0028	0.0016

ITC-825
ACETALDEHYDE
1984 JUNE 1

1150: FILLED CHAMBER.
1200: EMPTIED CHAMBER.
1217: SECOND FILL STARTED.
1235: THIRD FILL. R.H. ~50% @ 80 F.
76 F DRY BULB
66 F WET BULB
1243: INJECTION: 73 MICRO L ACETALDEHYDE
1300: 70% LIGHTS
1610: DUMP BAG. TIMERS SET FOR NIGHT OF JUNE 3 TO FLUSH 3 HOURS
WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 1300 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.2	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.006	PPM
NO2-UNC	T 14B-1	0.009	PPM
ACETALD	10'C-600	0.412	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2200	DMS-1	RM-1211 DINETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR1 SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-825
ACETALDEHYDE
1984 JUNE 1

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	T DEG C ANA-TEMP	ACETALD PPM 10'C-600	PAN PPM ECD-
1 1241	-19	-----	-----	-----	-----	-----	0.000	0.00
1 1245	-15	0.007	0.006	0.011	0.018	-----	-----	-----
1 1251	-9	-----	-----	-----	-----	-----	0.384	-----
1 1255	-5	-----	-----	-----	-----	-----	0.433	-----
1 1300	0	0.004	0.006	0.009	0.016	-----	0.412	0.00
1 1315	15	0.001	0.006	0.010	0.017	23.6	-----	-----
1 1330	30	0.008	0.006	0.009	0.016	23.9	0.263	0.00
1 1345	45	0.009	0.007	0.010	0.018	24.1	-----	-----
1 1400	60	0.015	0.006	0.012	0.019	24.2	0.268	0.00
1 1415	75	0.019	0.007	0.013	0.021	24.3	-----	-----
1 1430	90	0.012	0.007	0.014	0.022	24.2	0.274	0.00
1 1445	105	0.018	0.007	0.013	0.022	24.2	-----	-----
1 1500	120	0.020	0.007	0.016	0.025	24.2	0.295	0.00
1 1515	135	0.023	0.007	0.016	0.024	24.3	-----	-----
1 1530	150	0.027	0.007	0.018	0.027	24.4	0.297	0.00
1 1545	165	0.029	0.007	0.019	0.027	24.4	-----	-----
1 1600	180	0.037	0.007	0.019	0.027	24.2	0.268	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	N-C4 PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	PROPENE PPM DMS-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLE PPM DMS-
1 1241	-19	0.0004	0.0010	0.0019	0.0011	0.0002	0.0017	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

WC	T DEG C ANA-TEMP	ACETALD PPM 10'C-600	PAN PPM ECD-1	HCHO PPM CA	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1
-1		0.000	0.000		1.43	0.003	0.005
18		0.384					
		0.433					
16		0.412	0.000				
17	23.6						
16	23.9	0.263	0.001				
18	24.1						
19	24.2	0.268	0.002	0.000			
21	24.3						
22	24.2	0.274	0.003				
22	24.2						
25	24.2	0.295	0.004	0.030			
24	24.3						
27	24.4	0.297	0.004				
27	24.4						
27	24.2	0.268	0.005	0.030			

NE	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1			
11	0.0002	0.0017	0.0020

ITC-826
NOX - AIR + MESITYLENE
1984 JUNE 4

0630: START WET FLUSH.
0830: STOP FLUSH. R.H. 50% @ 80 F.
0905: INJECTIONS: 7.2 ML NO
 1.2 ML NO2
 0.064 ML N-BUTANE
 0.064 ML PROPENE
0930: 70% LIGHTS
1130: INJECTION: 3.6 MICRO L TRIMETHYLBENZENE
1545: DUMP BAG. FLUSH FOR 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 930 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	76.4	0.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.720	PPM
NO2-UNC	T 14B-1	0.167	PPM
N-C4	DMS-1	0.0098	PPM
PROPENE	DMS-1	0.0102	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PM-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12° 5% CARBOWAX-400 GC1 ECD
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-826
NOX - AIR + MESITYLENE
1984 JUNE 4

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	135-TMB PPM 10'C-600	N-C4 PPM DMS-1	PROPE PPM DMS-
1 826	-64	-----	-----	-----	-----	0.0000	0.0003	0.00
1 836	-54	-----	-----	-----	-----	-----	-----	-----
1 908	-22	-----	-----	-----	-----	-----	0.0100	0.01
1 915	-15	0.005	0.710	0.150	0.855	-----	-----	-----
1 920	-10	-----	-----	-----	-----	-----	-----	-----
1 930	0	0.008	0.720	0.167	0.882	-----	0.0098	0.01
1 945	15	0.011	0.732	0.156	0.883	-----	0.0096	0.00
1 1000	30	0.005	0.742	0.161	0.899	-----	0.0094	0.00
1 1015	45	0.005	0.742	0.160	0.897	-----	0.0098	0.00
1 1030	60	0.011	0.740	0.161	0.897	-----	0.0094	0.00
1 1045	75	0.006	0.738	0.163	0.896	-----	0.0097	0.00
1 1100	90	0.012	0.742A	0.158A	0.895A	-----	0.0096	0.00
1 1115	105	0.006	0.740A	0.161A	0.895A	-----	0.0096	0.00
1 1130	120	0.006	0.737A	0.162A	0.893A	-----	0.0094	0.00
1 1136	126	-----	-----	-----	-----	0.0876	-----	-----
1 1145	135	0.006	0.722A	0.171A	0.888A	-----	0.0095	0.00
1 1200	150	0.011	0.707A	0.183A	0.886A	-----	0.0093	0.00
1 1215	165	0.012	0.685A	0.201A	0.882A	-----	0.0094	0.00
1 1230	180	0.012	0.660A	0.224A	0.881A	0.0708	0.0088	0.00
1 1245	195	0.013	0.638	0.245	0.879	-----	0.0093	0.00
1 1300	210	0.019	0.606	0.271	0.872	-----	0.0094	0.00
1 1315	225	0.020	0.575	0.300	0.870	-----	0.0092	0.00
1 1330	240	0.019	0.547	0.322	0.863	0.0397	0.0085	0.00
1 1345	255	0.020	0.516	0.344	0.857	-----	0.0089	0.00
1 1400	270	0.020	0.491	0.364	0.851	-----	0.0086	0.00
1 1415	285	0.020	0.468	0.375	0.839	-----	0.0086	0.00
1 1430	300	0.022	0.449	0.389	0.834	0.0235	0.0086	0.00
1 1445	315	0.022	0.431	0.399	0.826	-----	0.0087	0.00
1 1500	330	0.017	0.414	0.409	0.819	-----	0.0088	0.00
1 1515	345	0.015	0.400	0.416	0.812	-----	0.0088	0.00
1 1530	360	0.015	0.388	0.425	0.810	0.0147	0.0088	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C PPM DMS
1 826	-64	0.0151	-----	-----	0.004	0.0008	-----	0.00
1 836	-54	-----	1.50	0.002	-----	-----	0.0010	---

----- NO DATA TAKEN

27-JUL-84
PAGE 2

NC	135-TMR PPH 10'C-600	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3=	T DEG C DORIC-1	PAN PPH ECD-1	HCHO PPH CA
--	0.0000	0.0003	0.0008	-----	-----	-----	-----
--	-----	-----	-----	-----	-----	0.000	-----
--	-----	0.0100	0.0104	0.0306	-----	-----	-----
55	-----	-----	-----	-----	-----	-----	-----
--	-----	-----	-----	-----	-----	-----	0.004
82	-----	0.0098	0.0102	0.0248	-----	-----	-----
83	-----	0.0096	0.0097	0.0605	76.6	-----	-----
99	-----	0.0094	0.0092	0.0924	77.3	-----	-----
97	-----	0.0098	0.0093	0.1130	77.6	-----	-----
97	-----	0.0094	0.0089	0.1244	76.3	-----	0.002
96	-----	0.0097	0.0090	0.1348	75.5	-----	-----
95A	-----	0.0096	0.0088	0.1498	75.8	-----	-----
95A	-----	0.0096	0.0087	0.1684	75.8	-----	-----
93A	-----	0.0094	0.0084	0.1898	76.0	-----	0.006
--	0.0876	-----	-----	-----	-----	0.000	-----
88A	-----	0.0095	0.0084	0.1961	75.6	-----	-----
86A	-----	0.0093	0.0076	0.2649	75.5	-----	-----
82A	-----	0.0094	0.0078	0.2509	75.4	-----	-----
81A	0.0708	0.0088	0.0071	0.2791	75.5	0.000	0.006
79	-----	0.0093	0.0070	0.3430	75.8	-----	-----
72	-----	0.0094	0.0068	0.3916	75.7	-----	-----
70	-----	0.0092	0.0063	0.4508	75.7	-----	-----
63	0.0397	0.0085	0.0054	0.5316	76.0	0.002	0.010
57	-----	0.0089	0.0054	0.5735	76.7	-----	-----
51	-----	0.0086	0.0049	0.6336	77.1	-----	-----
39	-----	0.0086	0.0045	0.7169	77.1	-----	-----
34	0.0235	0.0086	0.0044	0.7408	77.3	0.002	0.022
26	-----	0.0087	0.0043	0.7758	77.4	-----	-----
19	-----	0.0088	0.0041	0.8285	77.3	-----	-----
12	-----	0.0088	0.0039	0.8729	77.5	-----	-----
10	0.0147	0.0088	0.0037	0.9329	77.7	0.003	0.018

NE	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4=	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
1	-----	-----	-----	-----	-----
04	0.0008	-----	0.0002	0.0012	-----
--	-----	0.0010	-----	-----	0.0010

2

ITC-826
NOX - AIR + MESITYLENE
1984 JUNE 4

NOTES

- A BETWEEN 1045 AND 1100 PDT, THE NO READINGS SUDDENLY SHIFTED BY 0.052 PPM AND THE NO2 SHIFTED BY 0.012 PPM, AND THEN SHIFTED BACK EQUALLY SUDDENLY BETWEEN 1230 AND 1245. THE REASON FOR THIS IS UNKNOWN. THE TECO 14B-1 WAS SUBSEQUENTLY CHECKED AND FOUND TO BE OPERATING NORMALLY. THE INITIAL AND FINAL NO AND NO2 DATA ARE ASSUMED TO BE CORRECT, AND THE NO, NO2, AND NOX DATA BETWEEN 1100 AND 1230 PDT ARE CORRECTED BY SUBTRACTING 0.052, 0.012, AND 0.064, RESPECTIVELY.

ITC-827
NOX - AIR + M-XYLENE
1984 JUNE 6

~0600: START FLUSH.
0840: STOP FLUSH. R.H. 54%
71 F DRY BULB
61 F WET BULB
0916: INJECTIONS: 7.2 ML NO
1.2 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0930-0933: 70% LIGHTS
1130: INJECTION: 5.1 MICRO L M-XYLENE
1545: DUMP BAG. SET UP TO FLUSH 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT
LIGHTS.

T=0 AT 930 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	74.3	0.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.876	PPM
N-C4	DMS-1	0.0095	PPM
PROPENE	DMS-1	0.0111	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-1211 POROPAK-N GC1 FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC1 ECD
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC1 FID
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC1 FID
3378	D-3378	DASIBI 3378 OZONE MONITOR
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER

ITC-827
NOX - AIR + M-XYLENE
1984 JUNE 6

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	M-XYL PPM 10'C-600	N-C4 PPM DMS-1	PROPE PPM DMS-
1 843	-47	-----	-----	-----	-----	-----	0.0002	0.00
1 900	-30	0.011	0.005	0.009	0.012	-----	-----	-----
1 915	-15	0.012	0.781	0.212	0.988	-----	-----	-----
1 919	-11	-----	-----	-----	-----	-----	0.0094	0.01
1 930	0	0.012	0.876	0.173	1.045	-----	0.0095	0.01
1 945	15	0.004	0.884	0.173	1.053	-----	0.0097	0.01
1 1000	30	0.008	0.883	0.175	1.053	-----	0.0097	0.01
1 1015	45	0.005	0.883	0.177	1.055	-----	0.0096	0.01
1 1030	60	0.005	0.883	0.180	1.058	-----	0.0094	0.01
1 1045	75	0.005	0.883	0.182	1.060	-----	0.0095	0.01
1 1100	90	0.005	0.883	0.186	1.064	-----	0.0094	0.00
1 1115	105	0.004	0.881	0.188	1.064	-----	0.0092	0.00
1 1130	120	0.014	0.877	0.189	1.061	-----	0.0094	0.00
1 1137	127	-----	-----	-----	-----	0.1429	-----	-----
1 1145	135	0.006	0.863	0.194	1.053	-----	0.0093	0.00
1 1200	150	0.006	0.857	0.201	1.054	-----	0.0095	0.00
1 1215	165	0.011	0.843	0.212	1.050	-----	0.0090	0.00
1 1230	180	0.006	0.828	0.225	1.047	0.1335	0.0092	0.00
1 1245	195	0.011	0.815	0.237	1.048	-----	0.0093	0.00
1 1300	210	0.012	0.796	0.253	1.045	-----	0.0093	0.00
1 1315	225	0.013	0.780	0.268	1.044	-----	0.0092	0.00
1 1330	240	0.014	0.757	0.285	1.037	0.1201	0.0092	0.00
1 1345	255	0.014	0.735	0.301	1.031	-----	0.0090	0.00
1 1400	270	0.021	0.712	0.323	1.031	-----	0.0093	0.00
1 1415	285	0.019	0.688	0.338	1.022	-----	0.0091	0.00
1 1430	300	0.020	0.664	0.355	1.015	0.1005	0.0089	0.00
1 1445	315	0.019	0.645	0.367	1.007	-----	0.0089	0.00
1 1500	330	0.020	0.620	0.383	0.998	-----	0.0090	0.00
1 1515	345	0.020	0.597	0.393	0.987	-----	0.0089	0.00
1 1530	360	0.015	0.577	0.408	0.980	0.0805	0.0088	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C PPM DMS-
1 843	-47	0.0000	0.0000	0.0000	1.39	0.003	0.004	0.00

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC M R-1	M-XYL PPM 10°C-600	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3-	T DEG C DORIC-1	PAN PPM ECD-1	HCHO PPM CA
---	-----	0.0002	0.0007	-----	-----	0.000	-----
012	-----	-----	-----	-----	-----	-----	-----
988	-----	-----	-----	-----	-----	-----	-----
---	-----	0.0094	0.0109	-0.0809	-----	-----	-----
045	-----	0.0095	0.0111	-0.0896	-----	-----	0.004
053	-----	0.0097	0.0111	-0.0637	74.9	-----	-----
053	-----	0.0097	0.0109	-0.0492	75.8	-----	-----
055	-----	0.0096	0.0105	-0.0195	76.4	-----	-----
058	-----	0.0094	0.0100	0.0120	75.8	-----	0.016
060	-----	0.0095	0.0100	0.0187	75.0	-----	-----
064	-----	0.0094	0.0096	0.0493	74.8	-----	-----
064	-----	0.0092	0.0093	0.0590	74.8	-----	-----
061	-----	0.0094	0.0093	0.0832	74.7	-----	0.010
---	0.1429	-----	-----	-----	-----	0.000	-----
053	-----	0.0093	0.0089	0.1072	74.1	-----	-----
054	-----	0.0095	0.0090	0.1136	74.1	-----	-----
050	-----	0.0090	0.0085	0.1278	74.3	-----	-----
047	0.1335	0.0092	0.0084	0.1548	74.3	0.000	0.012
048	-----	0.0093	0.0083	0.1826	73.9	-----	-----
045	-----	0.0093	0.0079	0.2235	73.8	-----	-----
044	-----	0.0092	0.0076	0.2684	73.7	-----	-----
037	0.1201	0.0092	0.0072	0.3108	73.6	0.001	-----
031	-----	0.0090	0.0068	0.3480	73.7	-----	-----
031	-----	0.0093	0.0066	0.4034	73.6	-----	-----
022	-----	0.0091	0.0062	0.4585	73.6	-----	-----
015	0.1005	0.0089	0.0057	0.5137	73.5	0.001	0.014
007	-----	0.0089	0.0056	0.5326	73.7	-----	-----
998	-----	0.0090	0.0051	0.6284	73.7	-----	-----
987	-----	0.0089	0.0049	0.6695	73.5	-----	-----
980	0.0805	0.0088	0.0046	0.7205	73.9	0.002	0.010

IANE PM -1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4- PPM DMS-1	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
.39	0.003	0.004	0.0007	0.0008	0.0002	0.0011	0.0009

ITC-828
NOX - AIR + TOLUENE
1984 JUNE 7

0630: START FLUSH.
0827: STOP FLUSH. R.H. ~50% @ 80 F.
0855: INJECTIONS: 7.2 ML NO
 1.2 ML NO2
 0.064 ML PROPENE
 0.064 ML N-BUTANE
1116: INJECTION: 13.8 MICRO L TOLUENE
1515: DUMP BAG. TIMER SET FOR 3 HOUR FLUSH WITH LIGHTS, 2 HOUR
 FLUSH WITHOUT LIGHTS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	DORIC-1	76.7	0.8	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.834	PPM
NO2-UNC	T 14B-1	0.175	PPM
N-C4	DMS-1	0.0094	PPM
PROPENE	DMS-1	0.0108	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
1800	DORIC-1	DORIC TEMPERATURE INDICATOR, SN 61479
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-828
NOX - AIR + TOLUENE
1984 JUNE 7

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPM D-3378	NO PPM T 14B-1	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	TOLUENE PPM 10'C-600	N-C4 PPM DMS-1	PROI PI DMS
1 828	-47	-----	-----	-----	-----	0.0000	0.0003	0.0
1 845	-30	0.550	0.006	0.010	0.014	-----	-----	-----
1 858	-17	-----	-----	-----	-----	-----	0.0094	0.0
1 900	-15	0.550	0.827	0.175	0.998	-----	-----	-----
1 910	-5	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.011	0.834	0.175	1.005	-----	0.0094	0.0
1 930	15	0.004	0.840	0.173	1.009	-----	0.0093	0.0
1 945	30	0.009	0.841	0.176	1.013	-----	0.0094	0.0
1 1000	45	0.012	0.841	0.179	1.015	-----	0.0093	0.0
1 1015	60	0.005	0.839	0.181	1.015	-----	0.0096	0.0
1 1030	75	0.005	0.840	0.179	1.014	-----	0.0095	0.0
1 1045	90	0.004	0.837	0.183	1.015	-----	0.0094	0.0
1 1100	105	0.009	0.835	0.184	1.015	-----	0.0094	0.0
1 1115	120	0.004	0.836	0.186	1.016	-----	0.0094	0.0
1 1120	125	-----	-----	-----	-----	0.4266	-----	-----
1 1130	135	0.005	0.826	0.187	1.009	-----	0.0090	0.0
1 1145	150	0.012	0.824	0.192	1.011	-----	0.0094	0.0
1 1200	165	0.013	0.818	0.196	1.009	-----	0.0092	0.0
1 1215	180	0.012	0.813	0.199	1.007	0.4266	0.0093	0.0
1 1230	195	0.011	0.809	0.206	1.011	-----	0.0093	0.0
1 1245	210	0.012	0.800	0.213	1.008	-----	0.0090	0.0
1 1300	225	0.012	0.792	0.219	1.006	-----	0.0093	0.0
1 1315	240	0.012	0.785	0.227	1.008	0.4123	0.0092	0.0
1 1330	255	0.013	0.778	0.229	1.002	-----	0.0091	0.0
1 1345	270	0.013	0.771	0.237	1.003	-----	0.0089	0.0
1 1400	285	0.014	0.761	0.240	0.996	-----	0.0089	0.0
1 1415	300	0.017	0.755	0.244	0.996	0.4148	0.0089	0.0
1 1430	315	0.012	0.743	0.253	0.992	-----	0.0086	0.0
1 1445	330	0.019	0.734	0.261	0.992	-----	0.0089	0.0
1 1500	345	0.012	0.728	0.264	0.988	-----	0.0089	0.0
1 1505	350	-----	-----	-----	-----	-----	-----	-----
1 1515	360	0.021	0.718	0.271	0.985	0.3954	0.0091	0.0

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PM-1	ETHANE PPM PM-1	PROPANE PPM DMS-1	I- P DM
1 828	-47	0.0000	0.0000	0.0000	1.20	0.002	0.004	0.0

----- NO DATA TAKEN

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UNC PM 4B-1	TOLUENE PPM 10'C-600	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEB C DORIC-1	PAN PPM ECD-1	HCHO PPM CA
----	0.0000	0.0003	0.0008	-----	-----	0.000	-----
.014	-----	-----	-----	-----	-----	-----	-----
-----	-----	0.0094	0.0109	-0.0808	-----	-----	-----
.998	-----	-----	-----	-----	-----	-----	0.008
-----	-----	-----	-----	-----	-----	-----	-----
.005	-----	0.0094	0.0108	-0.0684	-----	-----	-----
.009	-----	0.0093	0.0105	-0.0473	76.5	-----	-----
.013	-----	0.0094	0.0101	-0.0053	77.0	-----	-----
.015	-----	0.0093	0.0097	0.0259	76.5	-----	-----
.015	-----	0.0096	0.0099	0.0466	75.2	-----	0.010
.014	-----	0.0095	0.0098	0.0336	75.0	-----	-----
.015	-----	0.0094	0.0095	0.0578	75.0	-----	-----
.015	-----	0.0094	0.0092	0.0836	75.3	-----	-----
.016	-----	0.0094	0.0092	0.0837	76.1	-----	0.006
-----	0.4266	-----	-----	-----	-----	0.000	-----
.009	-----	0.0090	0.0086	0.1089	76.6	-----	-----
.011	-----	0.0094	0.0090	0.1199	76.5	-----	-----
.009	-----	0.0092	0.0087	0.1294	76.7	-----	-----
.007	0.4266	0.0093	0.0086	0.1510	76.9	0.000	0.012
.011	-----	0.0093	0.0083	0.1753	76.5	-----	-----
.008	-----	0.0090	0.0080	0.1913	76.5	-----	-----
.006	-----	0.0093	0.0081	0.2073	76.9	-----	-----
.008	0.4123	0.0092	0.0079	0.2238	77.2	0.000	-----
.002	-----	0.0091	0.0075	0.2608	77.2	-----	-----
.003	-----	0.0089	0.0072	0.2802	77.4	-----	-----
.996	-----	0.0089	0.0070	0.3181	77.7	-----	-----
.996	0.4148	0.0089	0.0069	0.3275	77.7	0.000	0.010
.992	-----	0.0086	0.0064	0.3642	77.8	-----	-----
.992	-----	0.0089	0.0066	0.3707	77.2	-----	-----
.988	-----	0.0089	0.0062	0.4319	76.9	-----	-----
-----	-----	-----	-----	-----	-----	-----	0.008
.985	0.3954	0.0091	0.0061	0.4647	77.1	0.000	-----

HANE PM -1	ETHANE PPM PN-1	PROPANE PPM DMS-1	I-C4 PPM DMS-1	ETHENE PPM PN-1	I-C4= PPM DMS-1	ACETYLEN PPM PN-1	ACETYLEN PPM DMS-1
1.20	0.002	0.004	0.0008	0.0008	0.0002	0.0007	0.0009

ITC-829
NOX-AIR IRRADIATION
1984 JUNE 8

0630: START FLUSH.
0811: STOP FLUSH. R.H. 50% @ 80 F.
65 F WET BULB
75 F DRY BULB
0844: INJECTIONS: 1.8 ML NO
0.32 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

1100: DUMP BAG.

NOTE: TEMPERATURE NOT TAKEN BY APPLE. TEMPERATURES RECORDED ON
CHART PAPER.

T=0 AT 900 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	D-3378	24.6	0.2	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.210	PPM
NO2-UNC	T 14B-1	0.048	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
2920	10'C-600	RH-121; 10' 10% CARBOWAX-600 GC; FID
2200	DMS-1	RH-121; DIMETHYLSULFOLANE GC; FID
2100	PN-1	RH-121; POROPAK-N GC; FID
2000	ECD-1	RH-121; 12' 5% CARBOWAX-400 GC; ECD
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
3378	D-3378	DASIBI 3378 OZONE MONITOR

ITC-829
NOX-AIR IRRADIATION
1984 JUNE 8

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	LNC4/C3=	T DEG C D-3378	HCHO PPH CA
1 815	-45	-----	-----	-----	-----	-----	-----	-----
1 845	-15	0.010	0.007	0.008	0.013	-----	-----	-----
1 847	-13	-----	-----	-----	-----	-0.0075	-----	-----
1 900	0	0.011	0.210	0.048	0.256	0.0000	-----	0.0
1 915	15	0.011	0.212	0.048	0.259	0.0410	24.5	-----
1 930	30	0.005	0.212	0.048	0.258	0.0875	24.5	-----
1 945	45	0.006	0.211	0.048	0.258	0.1246	24.6	-----
1 1000	60	0.006	0.209	0.049	0.257	0.1616	25.0	-----
1 1015	75	0.011	0.207	0.051	0.257	0.2094	24.8	-----
1 1030	90	0.005	0.207	0.054	0.258	0.2478	24.5	-----
1 1045	105	0.006	0.205	0.054	0.258	0.2719	24.4	-----
1 1050	110	-----	-----	-----	-----	-----	-----	0.0
1 1100	120	0.006	0.204	0.055	0.257	0.3091	24.3	-----

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4=	ACETYL
							PPH DMS-1	PPH PN-1
1 815	-45	1.41	0.002	0.004	0.0008	0.0018	0.0002	0.00

----- NO DATA TAKEN

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PAGE 2

NC	LNC4/C3=	T DEG C D-3378	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	PAN PPM ECD-1
-1				0.0000	0.0000	0.0000	0.000
--	-----	-----	-----	-----	-----	-----	-----
13							
--	-0.0075	-----	-----	-----	-----	-----	-----
56	0.0000	-----	0.006	-----	-----	-----	-----
59	0.0410	24.5	-----	-----	-----	-----	-----
58	0.0875	24.5	-----	-----	-----	-----	-----
58	0.1246	24.6	-----	-----	-----	-----	-----
57	0.1616	25.0	-----	-----	-----	-----	-----
57	0.2094	24.8	-----	-----	-----	-----	-----
58	0.2478	24.5	-----	-----	-----	-----	-----
58	0.2719	24.4	-----	-----	-----	-----	-----
--	-----	-----	0.012	-----	-----	-----	-----
57	0.3091	24.3	-----	-----	-----	-----	-----
	ETHENE	I-C4=	ACETYLEN	ACETYLEN			
	PPM	PPM	PPM	PPM			
-1	PN-1	DMS-1	PN-1	DMS-1			
008	0.0018	0.0002	0.0020	0.0026			

ITC-831
NOX - AIR + BENZENE
1984 JUNE 11

0630: BEGIN WET FLUSH.

0822: R.H. 52% @ 80 F.
65 F WET BULB
72 F DRY BULB

0854: INJECTIONS: 7.2 ML NO
1.2 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE

0915: 70% LIGHTS

1116: INJECTION: 58 MICRO L BENZENE

1520: DUMP BAG. FLUSH FOR 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	24.9	1.4	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.837	PPH
NO2-UNC	T 14B-1	0.170	PPH
N-C4	DMS-1	0.0094	PPH
PROPENE	DMS-1	0.0097	PPH

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	DASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR; SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
2920	10'C-600	RM-1211 10' 10% CARBOWAX-600 GC; FID
2100	PM-1	RM-1211 POROPAK-N GC; FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC; ECD
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC; FID
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS

ITC-831
NOX - AIR + BENZENE
1984 JUNE 11

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	BENZENE PPH 10'C-600	N-C4 PPH DMS-1	PROPEL PPH DMS-
1 826	-49	-----	-----	-----	-----	0.0000	0.0003	0.00
1 836	-39	-----	-----	-----	-----	-----	-----	-----
1 845	-30	0.012	0.000	0.000	0.000	-----	-----	-----
1 858	-17	-----	-----	-----	-----	-----	0.0097	0.01
1 900	-15	0.012	0.834	0.170	0.999	-----	-----	-----
1 905	-10	-----	-----	-----	-----	-----	-----	-----
1 915	0	0.012	0.837	0.170	1.000	-----	0.0094	0.00
1 930	15	0.012	0.840	0.173	1.000	-----	0.0099	0.00
1 945	30	0.012	0.838	0.175	1.000	-----	0.0091	0.00
1 1000	45	0.005	0.842	0.175	1.000	-----	0.0094	0.00
1 1015	60	0.006	0.843	0.178	1.000	-----	0.0093	0.00
1 1030	75	0.005	0.842	0.174	1.000	-----	0.0092	0.00
1 1045	90	0.005	0.838	0.189	1.000	-----	0.0092	0.00
1 1100	105	0.005	0.837	0.185	1.000	-----	0.0093	0.00
1 1115	120	0.005	0.835	0.186	1.000	-----	0.0091	0.00
1 1120	125	-----	-----	-----	-----	2.038A	-----	-----
1 1130	135	0.006	0.827	0.187	1.000	-----	0.0091	0.00
1 1145	150	0.006	0.822	0.188	1.000	-----	0.0091	0.00
1 1200	165	0.012	0.819	0.192	1.000	-----	0.0092	0.00
1 1215	180	0.014	0.813	0.195	1.003	2.038	0.0091	0.00
1 1230	195	0.012	0.809	0.197	1.000	-----	0.0091	0.00
1 1245	210	0.014	0.804	0.202	1.000	-----	0.0091	0.00
1 1300	225	0.019	0.799	0.209	1.002	-----	0.0092	0.00
1 1315	240	0.014	0.797	0.210	1.001	1.992	0.0091	0.00
1 1330	255	0.014	0.793	0.212	0.998	-----	0.0092	0.00
1 1345	270	0.019	0.786	0.215	0.995	-----	0.0091	0.00
1 1400	285	0.019	0.783	0.215	0.993	-----	0.0090	0.00
1 1415	300	0.019	0.779	0.219	0.991	2.027	0.0092	0.00
1 1430	315	0.019	0.776	0.222	0.993	-----	0.0093	0.00
1 1445	330	0.019	0.773	0.225	0.992	-----	0.0089	0.00
1 1500	345	0.021	0.767	0.228	0.990	-----	0.0089	0.00
1 1505	350	-----	-----	-----	-----	-----	-----	-----
1 1515	360	0.021	0.763	0.234	0.991	2.015	0.0091	0.00

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETALD PPH 10'C-600	ACETONE PPH 10'C-600	MEK PPH 10'C-600	METHANE PPH PM-1	ETHANE PPH PM-1	PROPANE PPH DMS-1	I-C4 PPH DMS-
1 826	-49	0.0000	0.0000	0.0000	-----	-----	0.003	0.00
1 836	-39	-----	-----	-----	1.40	0.003	-----	-----

----- NO DATA TAKEN

27-JUL-84
PAGE 2

UNC M R-1	BENZENE PPH 10'C-600	N-C4 PPH DMS-1	PROPENE PPH DMS-1	LNC4/C3=	T DEG C ANA-TEMP	PAN PPH ECD-1	HCHO PPH CA
---	0.0000	0.0003	0.0008	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	0.000	-----
000	-----	-----	-----	-----	-----	-----	-----
---	-----	0.0097	0.0100	0.0396	-----	-----	-----
999	-----	-----	-----	-----	-----	-----	-----
---	-----	-----	-----	-----	-----	-----	0.012
000	-----	0.0094	0.0097	0.0367	-----	-----	-----
000	-----	0.0099	0.0099	0.0733	25.3	-----	-----
000	-----	0.0091	0.0088	0.0945	23.0	-----	-----
000	-----	0.0094	0.0089	0.1178	21.9	-----	-----
000	-----	0.0093	0.0086	0.1450	21.5	-----	0.012
000	-----	0.0092	0.0083	0.1747	21.7	-----	-----
000	-----	0.0092	0.0081	0.1952	25.5	-----	-----
000	-----	0.0093	0.0081	0.2034	24.1	-----	-----
000	-----	0.0091	0.0074	0.2667	25.4	-----	0.006
---	2.038A	-----	-----	-----	-----	0.000	-----
000	-----	0.0091	0.0076	0.2588	25.5	-----	-----
000	-----	0.0091	0.0076	0.2560	25.6	-----	-----
000	-----	0.0092	0.0075	0.2710	25.6	-----	-----
003	2.038	0.0091	0.0072	0.3030	25.6	0.000	0.004
000	-----	0.0091	0.0072	0.3040	25.6	-----	-----
000	-----	0.0091	0.0071	0.3115	25.6	-----	-----
002	-----	0.0092	0.0071	0.3286	25.6	-----	-----
001	1.992	0.0091	0.0069	0.3500	25.6	0.000	-----
998	-----	0.0092	0.0068	0.3766	25.6	-----	-----
995	-----	0.0091	0.0067	0.3792	25.5	-----	-----
993	-----	0.0090	0.0062	0.4381	25.5	-----	-----
991	2.027	0.0092	0.0062	0.4596	25.5	0.000	0.006
993	-----	0.0093	0.0063	0.4590	25.7	-----	-----
992	-----	0.0089	0.0060	0.4633	26.2	-----	-----
990	-----	0.0089	0.0059	0.4830	25.7	-----	-----
---	-----	-----	-----	-----	-----	-----	0.006
991	2.015	0.0091	0.0059	0.4953	25.2	-----	-----

ANE M 1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1	ACETYLEN PPH DMS-1	ACETYLEN PPH PN-1
---	-----	0.003	0.0007	-----	0.0001	0.0019	-----
.40	0.003	-----	-----	0.0020	-----	-----	0.0017

2

ITC-831
NOX - AIR + BENZENE
1984 JUNE 11

NOTES

A LOOP SAMPLE NOW.

ITC-832
NOX-AIR - TETRALIN
1984 JUNE 12

0630: START FLUSH.
0818: STOP FLUSH. R.H. ~50% @ 80 F.
65 F WET BULB
76 F DRY BULB
0852: INJECTIONS: 7.2 ML NO
1.2 ML NO2
0.064 ML PROPENE
0.064 ML N-BUTANE
0915: 70% LIGHTS
1116: INJECTION: 355 MICRO L TETRALIN
1144: MONITOR 8410 ON ITC.
1542: DUMP BAG. FLUSH FOR 3 HOURS WITH LIGHTS, 2 HOURS WITHOUT LIGHTS.

T=0 AT 915 PDT

K1 = 0.325 MIN-1

BAG NO. 103 USED

ID	INST.	AVERAGE VALUE	S.DEV	UNITS
T	ANA-TEMP	25.3	0.5	DEG C

ID	INST.	INITIAL CONC.	UNITS
NO	T 14B-1	0.840	PPM
NO2-UNC	T 14B-1	0.159	PPM
N-C4	DMS-1	0.0102	PPM
PROPENE	DMS-1	0.0104	PPM

INSTRUMENTS USED

ID	LABEL	DESCRIPTION
3378	D-3378	QASIBI 3378 OZONE MONITOR
3790	ANA-TEMP	ANALOGIC TEMP. MONITOR: SN1223790
1510	T 14B-1	TECO 14B-1 NO-NOX ANALYZER
8410	NO3-8410	MONITOR LABS 8410 O3 ANALYZER (CHEMIL.)
3000	CA	CHROMOTROPIC ACID HCHO ANALYSIS
2100	PN-1	RM-1211 POROPAK-N GC: FID
2000	ECD-1	RM-1211 12' 5% CARBOWAX-400 GC: ECD
2850	DB-5C-1	RM-1211 30 M DB-5 QUARTZ CAP: GC: FID
2920	10'C-400	RM-1211 10' 10% CARBOWAX-600 GC: FID
2200	DMS-1	RM-1211 DIMETHYLSULFOLANE GC: FID

ITC-832
NOX-AIR - TETRALIN
1984 JUNE 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	OZONE PPH D-3378	OZONE PPH MO3-8410	NO PPH T 14B-1	NO2-UNC PPH T 14B-1	NOX-UNC PPH T 14B-1	TETRALIN PPH DB-5C-1	N-C PP DMS
1 826	-49	-----	-----	-----	-----	-----	-----	0.0
1 845	-30	0.011	-----	0.004	0.008	0.012	-----	0.0
1 855	-20	-----	-----	-----	-----	-----	-----	---
1 900	-15	0.011	-----	0.836	0.155	0.987	-----	---
1 915	0	0.011	-----	0.840	0.159	0.994	-----	0.0
1 930	15	0.005	-----	0.844	0.156	0.995	-----	0.0
1 945	30	0.012	-----	0.840	0.162	0.997	-----	0.0
1 1000	45	0.005	-----	0.845	0.178	1.000	-----	0.0
1 1015	60	0.012	-----	0.842	0.175	1.000	-----	0.0
1 1030	75	0.006	-----	0.840	0.174	1.000	-----	0.0
1 1045	90	0.005	-----	0.842	0.171	1.000	-----	0.0
1 1100	105	0.011	-----	0.836	0.175	1.000	-----	0.0
1 1115	120	0.005	-----	0.836	0.177	1.000	-----	0.0
1 1127	132	-----	-----	-----	-----	-----	3.939	---
1 1130	135	0.050	-----	0.808	0.192	0.997	-----	0.0
1 1145	150	0.022	-----	0.776	0.227	0.999	-----	0.0
1 1200	165	0.022	0.000	0.745	0.260	1.000	-----	0.0
1 1215	180	0.022	0.000	0.712	0.296	1.000	-----	0.0
1 1230	195	0.022	0.000	0.676	0.330	1.000	6.023	0.0
1 1245	210	0.023	0.000	0.641	0.368	1.000	-----	0.0
1 1300	225	0.023	0.000	0.592	0.403	0.993	-----	0.0
1 1315	240	0.029	0.003	0.551	0.434	0.981	-----	0.0
1 1330	255	0.025	0.002	0.509	0.468	0.974	6.797	0.0
1 1345	270	0.031	0.004	0.464	0.504	0.965	-----	0.0
1 1400	285	0.039	0.005	0.422	0.541	0.959	-----	0.0
1 1415	300	0.035	0.008	0.380	0.573	0.950	-----	0.0
1 1430	315	0.043	0.009	0.338	0.603	0.938	5.751	0.0
1 1445	330	0.045	0.013	0.296	0.632	0.924	-----	0.0
1 1500	345	0.060	0.017	0.256	0.656	0.909	-----	0.0
1 1515	360	0.063	0.023	0.217	0.678	0.892	-----	0.0
1 1530	375	0.073	0.031	0.182	0.693	0.871	3.942	---

	NO2-UNC PPM T 14B-1	NOX-UNC PPM T 14B-1	TETRALIN PPM DB-5C-1	N-C4 PPM DMS-1	PROPENE PPM DMS-1	LNC4/C3=	T DEG C ANA-TEMP	PAN PPM ECD-1
-1	-----	-----	-----	0.0003	0.0010	-----	-----	0.000
04	0.008	0.012	-----	-----	-----	-----	-----	-----
36	0.155	0.987	-----	0.0102	0.0105	0.0438	-----	-----
40	0.159	0.994	-----	0.0102	0.0104	0.0492	-----	-----
44	0.156	0.995	-----	0.0101	0.0099	0.0833	25.4	-----
40	0.162	0.997	-----	0.0099	0.0097	0.0929	24.7	-----
45	0.178	1.000	-----	0.0099	0.0094	0.1200	24.7	-----
42	0.175	1.000	-----	0.0099	0.0092	0.1447	24.9	-----
40	0.174	1.000	-----	0.0097	0.0089	0.1600	25.0	-----
42	0.171	1.000	-----	0.0102	0.0091	0.1789	25.1	-----
36	0.175	1.000	-----	0.0097	0.0086	0.1948	24.9	-----
36	0.177	1.000	-----	0.0100	0.0085	0.2301	24.7	-----
---	-----	-----	3.939	-----	-----	-----	-----	0.000
08	0.192	0.997	-----	0.0099	0.0085	0.2190	25.5	-----
76	0.227	0.999	-----	0.0099	0.0085	0.2206	24.9	-----
45	0.260	1.000	-----	0.0098	0.0083	0.2335	24.9	-----
12	0.296	1.000	-----	0.0097	0.0082	0.2323	24.9	-----
76	0.330	1.000	6.023	0.0098	0.0081	0.2550	25.1	0.000
41	0.368	1.000	-----	0.0099	0.0083	0.2385	25.1	-----
92	0.403	0.993	-----	0.0095	0.0077	0.2680	25.3	-----
51	0.434	0.981	-----	0.0095	0.0076	0.2886	25.7	-----
09	0.468	0.974	6.797	0.0096	0.0078	0.2678	26.2	0.000
64	0.504	0.965	-----	0.0097	0.0078	0.2808	26.0	-----
22	0.541	0.959	-----	0.0096	0.0077	0.2881	25.9	-----
80	0.573	0.950	-----	0.0097	0.0078	0.2894	25.8	-----
38	0.603	0.938	5.751	0.0090	0.0067	0.3611	25.7	0.000
96	0.632	0.924	-----	0.0094	0.0071	0.3515	25.7	-----
56	0.656	0.909	-----	0.0097	0.0074	0.3432	25.7	-----
17	0.678	0.892	-----	0.0092	0.0068	0.3706	25.8	-----
82	0.693	0.871	3.942	-----	-----	-----	25.9	-----

ITC-832
NOX-AIR - TETRALIN
1984 JUNE 12

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	HCHO PPM CA	ACETALD PPM 10'C-600	ACETONE PPM 10'C-600	MEK PPM 10'C-600	METHANE PPM PN-1	ETHANE PPM PN-1	PROI PI DMS
1 826	-49	-----	0.0000	0.0000	0.0000	1.33	0.003	0
1 905	-10	0.006	-----	-----	-----	-----	-----	---
1 1015	60	0.014	-----	-----	-----	-----	-----	---
1 1115	120	0.022	-----	-----	-----	-----	-----	---
1 1127	132	-----	0.0008	0.0000	0.0000	-----	-----	---
1 1215	180	0.018	-----	-----	-----	-----	-----	---
1 1230	195	-----	0.0013	0.0000	0.0000	-----	-----	---
1 1315	240	0.016	-----	-----	-----	-----	-----	---
1 1330	255	-----	0.0018	0.0000	0.0000	-----	-----	---
1 1415	300	0.014	-----	-----	-----	-----	-----	---
1 1430	315	-----	0.0023	0.0000	0.0000	-----	-----	---
1 1515	360	0.012	-----	-----	-----	-----	-----	---
1 1530	375	-----	0.0023	0.0000	0.0000	-----	-----	---

CLOCK TIME DAY HR	ELAPSED TIME (MIN)	ACETYLEN PPM DMS-1	ACETYLEN PPM PN-1
1 826	-49	0.0026	0.0021

----- NO DATA TAKEN

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ONE M 600	HEK PPH 10'C-600	METHANE PPH PN-1	ETHANE PPH PN-1	PROPANE PPH DMS-1	I-C4 PPH DMS-1	ETHENE PPH PN-1	I-C4= PPH DMS-1
000	0.0000	1.33	0.003	0.004	0.0008	0.0021	0.0002
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000	0.0000	---	---	---	---	---	---
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000	0.0000	---	---	---	---	---	---
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000	0.0000	---	---	---	---	---	---
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000	0.0000	---	---	---	---	---	---
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000	0.0000	---	---	---	---	---	---
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